sustainability report 2008



# decisive action in changing times



#### About this report

This is Catalyst Paper's sixth annual stand-alone sustainability report. It highlights three areas of the company's sustainability performance during 2008, that are of particular interest from investor, stakeholder and market perspectives. These feature discussions – relating to business viability, relationships with employees and communities, and product pedigrees – were selected based on an employee survey and a materiality analysis involving senior Catalyst staff, sustainability consultants and representatives of Canadian Business for Social Responsibility. This report also includes environmental and other data disclosure, as provided in previous reports.

This report is part of a broader disclosure process, which includes Catalyst's annual report and information on its website, **www.catalystpaper.com**. Unless otherwise stated, the information in this report is for the period January 1 to December 31, 2008, and encompasses all of Catalyst's wholly owned operations and world-wide sales. In the case of the Snowflake recycled newsprint mill, and unless otherwise stated, outputs and performance reflect the acquisition date (April 10, 2008). Where relevant, results for Canadian operations only are included for comparability with previous years. Reporting scope and metrics are otherwise essentially unchanged from previous reports. Where deemed helpful, calculation methods and any restatements or comparability issues are included.

This report constitutes Catalyst's Communication on Progress as a signatory to the United Nations Global Compact. Catalyst self-declares its corporate disclosure process to Global Reporting Initiative (GRI) Application Level C (see index on page 34).

# developments during 2008 were a clear reminder of the importance of the economic plank of sustainability

#### Company profile

Catalyst Paper manufactures diverse specialty printing papers, newsprint and pulp, and is headquartered in Richmond, British Columbia, Canada. Its customers include retailers, publishers, commercial printers and paper manufacturers in North America, Latin America, the Pacific Rim and Europe. With six facilities strategically situated in British Columbia (B.C.) and Arizona, Catalyst has a combined annual production capacity of 2.5 million tonnes.

Catalyst has earned a reputation for environmental leadership, based in part on extensive recycled capacity, energy efficiency and greenhouse gas reductions. This is the basis for the Catalyst Cooled<sup>™</sup> manufactured carbonneutral and certified-fibre chain-of-custody product offerings. Combined with cost discipline and production efficiency, these sustainability attributes have enhanced Catalyst's competitive position.

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Erratum: 2008 corporate-wide electricity use was 5,076,199 MWh and this is the figure that should have appeared in the statistics on page 4 and the graph of the total electricity use on page 18 of this report.

For more information on Catalyst Paper and its operations and products, visit www.catalystpaper.com

we want to be preferred by customers, welcomed by civil society, attractive to employees, competitive in capital markets

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# key issues



#### rewards and recognition

During 2008, Catalyst earned a range of third-party recognition confirming progress on many of the issues and initiatives discussed in this report.

#### Governance and disclosure

- Recognized as a Climate Disclosure Leader through the Carbon Disclosure Project, acknowledging superior and financially relevant climate-risk transparency
- Ranked best in corporate reporting in the forest products sector by the Canadian Institute of Chartered Accountants
- Recognized for the outstanding quality of sustainability reporting through the UN Global Compact's Notable Communication on Progress program
- Scored full points on 20 out of 22 criteria in a corporate governance assessment conducted by the Clarkson Centre for Business Ethics and Board Effectiveness at the University of Toronto

#### Corporate citizenship

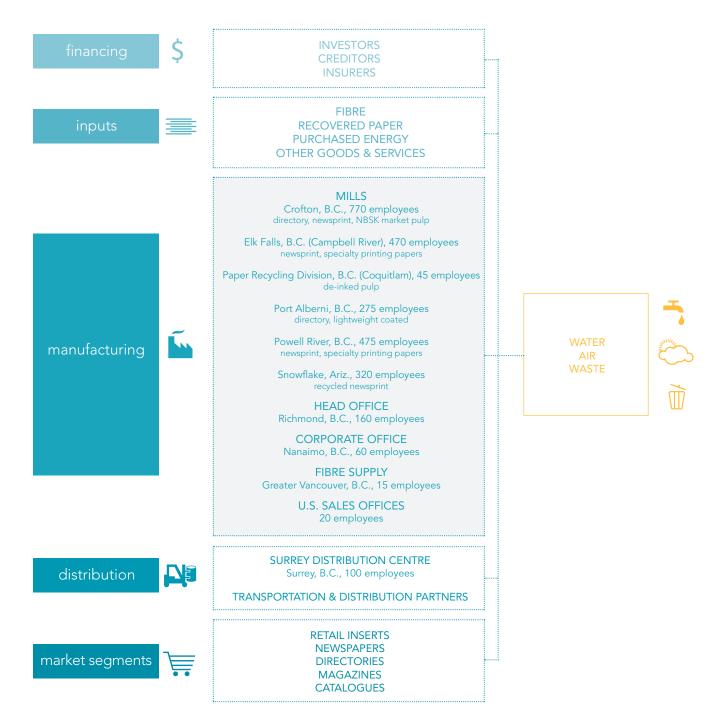
- Included in Corporate Knights magazine's list of 50 Best Corporate Citizens in Canada
- Continued inclusion in Jantzi Social Index, consisting of 60 Canadian companies that pass a set of broadbased environmental, social and governance screens
- Recognized by the United Way (British Columbia Lower Mainland) for a 16th consecutive year of gold-level employee giving (80 per cent of a one-day payroll)

#### **Operational achievements**

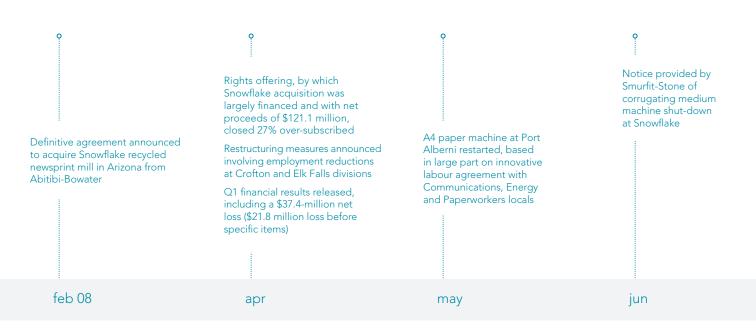
- Recognized for energy management and conservation efforts through BC Hydro's Power Smart Excellence Awards, and through a sector-leading four-star rating in a BC Hydro-sponsored energy-management assessment at the Crofton Division
- Winner of gold supplier award from telephone directory publisher AT&T Yellow Pages



### our process



Employment figures as of December 31, 2008



# finding new ways forward often begins by setting aside outdated assumptions

It may be unusual to begin a sustainability report with a focus on financial realities. But as the world economy shifted into recession in late 2008, it was a clear reminder of the importance of the economic plank in a truly sustainable business. The decline in commodity markets, including paper, stalled and reversed our year-long product pricing momentum.

For Catalyst, the downturn made our cost-efficiency focus in the past 18 months even more prudent and business-critical as we look ahead. Of course, this does not mean we will abandon our attention to workplace safety or shed our responsibility for good environmental practices. These are obligations we also consider business critical and they are rooted in our values as a company. We have formalized this belief through continued participation in the United Nations Global Compact. The capacity to address tough challenges with decisive action is a discipline that we have shown for two years now, and it is a management competency that we will continue to build on during this period of economic contraction. In 2008, we closed the Elk Falls sawdust pulp and white top linerboard operations due to the unavailability of sawdust fibre supply, and we pursued geographic diversification by acquiring the recycled newsprint mill at Snowflake, Arizona.

Our business strategy considers evolving social expectations and aligns with sustainability values that we see as integral to our commercial success. Our 2008 sustainability report highlights three areas of particular interest from investor, stakeholder and market perspectives.

While we strive for operational improvements on multiple fronts, we have highlighted key aspects of environmental performance of most interest to customers – fibre sourcing and certification, recycled paper production, and the carbon footprint of select paper products. Our product offerings are backed by clear and consistent performance reporting that can stand the scrutiny of well-known environmental groups.



#### President's message



Nebord Parma

**Richard Garneau** President and Chief Executive Officer February 12, 2009

We have long-standing relationships with many of our employees, and even longer-standing with our operating communities. It's natural that social expectations often reflect the realities of a far earlier time. Finding new ways forward often begins by challenging and setting aside outdated assumptions. With our workforce, we are developing new understandings of the nature and scope of employment, and with community leaders we are focusing on the benefits that can be reasonably sustained as we look to the future.

Since no aspect of our business is sustainable if our financial house is not in order, we were pleased to end the year with a more efficient manufacturing platform, with operating credit requirements in hand, and with an expanded product offering that continues to build on the merits of lighter basis-weight papers.

Tax-related issues, however, remained a challenge. We took steps in 2008 to raise government awareness of the significant discrepancy between the cost of municipal services received by our mills and the property taxes levied on major industry. A lower school tax rate for major industry was good news, but the savings were more than offset by British Columbia's new carbon tax which went into effect on July 1st.

We are determined to see action in 2009 on the municipal tax issue, and we want to ensure that additional regulatory measures account adequately for the significant carbon reductions we have already achieved. We will also renew our focus on safety, a vital performance metric on which we made some progress in 2008, but not as much as was called for.

Ultimately, we are determined to become a profitable business – preferred by customers, attractive to employees, welcomed by civil society, valued by shareholders, and competitive in capital markets. We're not entirely there yet, but we moved closer in 2008 even though global economics worked against us. Your feedback, as always, is welcome and can be sent to contactus@catalystpaper.com.

#### Key Performance Statistics

| Social                                     | 2008<br>Corporate-wide | 2008<br>Canadian<br>operations only | 2007  | 2006  |
|--|------------------------|-------------------------------------|-------|-------|
| Lost-time injury frequency <sup>1, 2</sup> | 2.19                   | 2.32                                | 2.06  | 1.51  |
| Medical incident rate <sup>2, 3</sup>      | 4.49                   | 4.53                                | 3.70  | 3.68  |
| Employee population <sup>4</sup>           | 2,711                  | 2,389                               | 3,023 | 3,655 |
| Payroll (\$ millions) <sup>5</sup>         | 264                    | 242                                 | 304   | 316   |
| Charitable donations (\$ thousands)        | 102                    | 88                                  | 239   | 320   |

| Economic (\$ millions)           | 2008<br>Corporate-wide | 2008<br>Canadian<br>operations only | 2007    | 2006    |
|----------------------------------|------------------------|-------------------------------------|---------|---------|
| Total taxes paid <sup>6</sup>    | 49.0                   | 48.5                                | 49.2    | 53.5    |
| Total sales                      | 1,849.4                | -                                   | 1,714.6 | 1,882.5 |
| Net earnings (loss) <sup>7</sup> | (221.1)                | -                                   | (31.6)  | (15.9)  |
| Market capitalization            | 115                    | -                                   | 337     | 762     |
| Return on capital employed       | (2.1%)                 | -                                   | 2.6%    | 0.0%    |

| Environmental   | 2008<br>Corporate-wide | 2008<br>Canadian<br>operations only | 2007        | 2006        |
|---|------------------------|-------------------------------------|-------------|-------------|
| Greenhouse gas emissions <sup>8,9</sup>                     | 1,039,366              | 379,582                             | 431,780     | 418,590     |
| Total reduced sulphur (TRS) emissions <sup>10, 11, 12</sup> | 138                    | 138                                 | 154         | 134         |
| Particulate emissions <sup>10, 11, 13</sup>                 | 932                    | 841                                 | 733         | 1,170       |
| Biochemical oxygen demand (BOD) <sup>10, 12</sup>           | 1,258                  | 1,258                               | 1,596       | 1,828       |
| Total suspended solids (TSS) <sup>10</sup>                  | 3,978                  | 2,912                               | 3,490       | 3,716       |
| Water use (m <sup>3</sup> ) <sup>9</sup>                    | 160,343,785            | 147,174,176                         | 165,846,744 | 177,989,675 |
| Fuel energy use <sup>14, 15</sup>                           | 43,375,581             | 36,903,866                          | 41,038,926  | 46,503,816  |
| Electricity use <sup>15, 16</sup>                           | 5,840,187              | 4,838,176                           | 5,067,222   | 5,491,260   |
| Solid waste disposal <sup>17</sup>                          | 260,386                | 156,879                             | 154,475     | 166,249     |
| Old newspapers and magazines recycled <sup>10</sup>         | 526,725                | 151,287                             | 170,272     | 173,195     |

#### 2008 corporate-wide results include the Snowflake, Arizona, operation and reflect its acquisition date of April 10, 2008

- 1 Number of lost-time injuries per 200,000 hours worked
- 2 2006 and 2007 figures updated to reflect post-year-end adjustments based on injury progression/duration
- 3 Number of medical incidents per 200,000 hours worked
- 4 Excludes vacancies
- 5 Includes all salaries and wages paid, excluding benefits and severance
- 6 2007 figure updated to correct a calculation error
- 7 The increase in net loss is largely attributable to an asset-impairment charge relating to the closure of Elk Falls sawdust pulp and white top linerboard operations
- 8 Tonnes CO<sub>2</sub>e per year
- 9 2006 and 2007 figures updated to reflect calculation adjustments
  - A complete glossary of terms and definitions is on page 35

- 10 Tonnes per year
- 11 Based on actual test results; NPRI data may differ because they include other sources and utilize emissions factors
- 12 Relevant at Canadian operations only
- 13 Previous years' particulate results have been updated; previously reported figures reflected permit limits rather than actual emissions at one operation and were, therefore, significantly overstated
- 14 Gigajoules includes fossil fuels and biomass
- 15 2007 figures updated to reflect calculation adjustments
- 16 Megawatt-hours purchased and self-generated
- 17 Cubic metres per year

This report contains forward-looking statements. Forward-looking statements are statements, other than statements of historical fact, that address or discuss activities, events or developments that Catalyst Paper expects or anticipates may occur in the future. These forward-looking statements can be identified by the use of words such as "anticipate", "could", "expect", "seek", "may", "likely", "intend", "will", "believe" and similar expressions or the negative thereof. These forward-looking statements reflect management's current views and are based on certain assumptions and factors management believes are appropriate in the circumstances, including assumptions that there will be no material change to the regulatory environment in which the company operates, capital budgeted for certain goals will be available and existing relationships with stakeholders will be maintained. Such forward-looking statements are subject to risks and uncertainties and no assurance can be given that any of the events anticipated by such statements will occur nor if they do occur, what benefit Catalyst will derive from them. No forward-looking statement is a guarantee of future results. A number of factors could cause actual results, performance or developments to differ materially from those expressed or implied by such forward-looking statements, including technological and regulatory changes, cost constraints, Catalyst's ability to successfully obtain operational and environmental performance improvements and other factors beyond its control. Catalyst disclaims any intention or obligation to update or revise any forward-looking statements, except as required by law.

#### Governance and Guidance

Effectively pursuing sustainability requires consistently integrating defined values, objectives and operating principles into all corporate activities. The following briefly describes key frameworks that support Catalyst in doing so, and further details are available at www.catalystpaper.com ("About Us").

#### Corporate governance

Catalyst's 10-member board of directors and its four committees operate under publicly disclosed administrative guidelines and terms of reference, and seek continuous improvement in their practices based in part on the application of best practices and external guidelines.

While principles of corporate social responsibility consistently inform board deliberations, its Environment, Health and Safety Committee has particular responsibilities in this regard, and designated executives report to it quarterly on this topic.

Director independence and effectiveness are evaluated annually through questionnaires. All directors were independent during 2008, with the exception of Chief Executive Officer, Richard Garneau, and Denis Jean, a director who provided consulting services to Catalyst. Most director compensation is equity-based and, therefore, aligned with corporate performance.

#### Code of ethics and policies

Actions on the part of Catalyst's board, executive and employees are governed by a Code of Corporate Ethics and Behaviour, which addresses issues including financialtransaction recording, bribery, political contributions, conflict of interest, and competition laws. All salaried employees are asked to annually review and certify their acceptance of and compliance with the code. Employees can anonymously report concerns regarding accounting or other matters pertaining to the code using a special telephone line. There was one call to this line on a conflict of interest matter during 2008. The matter was investigated by a professional-services firm under Audit Committee direction and it was determined that no action was required, however, internal processes were amended and clarified.

A range of policies govern more specific aspects of corporate activity. They are reviewed annually and employees and business partners are made aware of them.

#### Stakeholder relationships

Catalyst routinely engages with diverse stakeholders whose interests intersect with its corporate activities. They include business partners (capital providers, employees, suppliers, customers), residents of operating areas, governments, aboriginal groups, and environmental organizations.

Engagement is tailored to the particular stakeholders and issues, and is frequently open-ended and flexible. More formalized structures include investment analyst calls and tours, community advisory forums, joint committees, and forums such as the Coast Forest Conservation Initiative. Engagement principles include transparency, respectful dialogue, and a focus on mutual interests. Specific issues raised and responses during 2008 are described in various sections of this report.

#### Management systems and audits

Catalyst has formal environmental and quality-management systems widely in place. Production and distribution facilities are registered to the ISO 14001:2004 environmental standard and, with the exception of Paper Recycling Division, are also registered to the ISO 9001:2000 quality standard. In both cases, independent re-registration audits are required every three years, and independent and internal surveillance audits are required annually. Catalyst also commissions additional independent audits at its facilities every second year focusing in part on regulatory compliance (2008 audits did not include Snowflake, but subsequent ones will). The number of action items identified in 2008 increased 19 per cent from 2006. However, high-priority action items were down by 18 per cent in the same period, and the auditors deemed the trends to indicate ongoing improvement in managing overall environmental risk.

#### Non-compliance events by emission (total company)



There were no non-compliance events at Snowflake in 2008

Water
 Air



# addressing business viability

Catalyst and the entire forest products industry faced very difficult business conditions during 2008. The global credit crisis and economic downturn exacerbated the significant challenges already created by factors such as demand declines, currency volatility, input shortages and cost increases.



In 2008, Catalyst took particularly decisive action to align its operational platform with current business opportunities and realities, and maintained a long-standing focus on cost control and productiondemand alignment. Product innovation also helped maintain market position and margins in the face of often challenging demand conditions.

Readers with an interest in more detailed information on Catalyst's financial performance during 2008 will find the company's annual financial report at www.catalystpaper.com.

#### **Operational platform**

During 2008, Catalyst became a continental company with the acquisition of a 100-percent recycled newsprint mill located in Snowflake, Arizona. This is an important advancement in the ongoing effort to develop a more cost-effective operating platform that enhances Catalyst's already strong position in western North American markets.

Snowflake is one of the lowest-cost newsprint mills in North America, and is located in close proximity to growth markets that offer access to good-quality recovered paper supplies and a natural hedge against currency fluctuations. More than US\$9 million in acquisition-related synergies, on an annualized basis, were achieved in 2008.

Within British Columbia, Catalyst's operating platform became smaller in 2008. Sawdust pulp and white top linerboard production at Elk Falls Division was closed due to lack of sawdust availability. The scope of production at Snowflake was reduced during 2008, with closure of a corrugating medium machine. This machine was owned by Smurfit-Stone Container Corporation and was housed and operated at Snowflake under contract. The decision to stop operating it at the end of the contract was Smurfit-Stone's, and was anticipated when Catalyst acquired Snowflake. About 100 positions were eliminated as a result.



#### Cost and production discipline

A continued and comprehensive costcontrol focus during 2008 included the pursuit of labour cost benchmarks and a range of other reductions and efficiency improvements.

Continued use of regular operational audits, conducted on a machine-specific basis by employees from other divisions, contributed to production-related efficiency. Knowledge transfer between Snowflake and other operations was also beneficial. This included adoption of whiteness rather than brightness as a key product quality criterion, a change that has been found to meet end-use requirements while reducing chemical use. An audit of Snowflake's No. 3 paper machine also identified various improvement opportunities.

Among other specific cost-reduction achievements during the year were a suite of four product distribution initiatives. These involved higher yield (product loading) on rail cars, higher yield on trucks, deployment of larger company-controlled barges, and improved company-wide inventory management and productivity at the Surrey Distribution Centre.

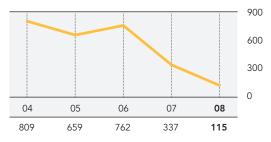
Catalyst also continued to adhere to a rigorous strategy of matching production to customer orders – a strategy of particular importance during a year which saw often weak demand conditions and the onset of a widespread economic downturn.

Catalyst acted quickly in 2008 to implement curtailments across all three product segments as market demand dictated, in addition to curtailments necessitated by fibre shortages and maintenance requirements.

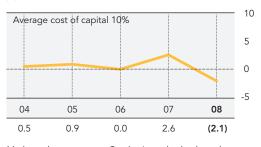
#### **Product innovation**

A wide product range and an ability to shift production among grades are strengths for Catalyst. During 2008, the company further increased its machine flexibility and undertook new grade development in an effort to maintain sales and pricing within the markets it is best positioned to serve.

## Market capitalization (\$ millions)



### Return on capital employed



Market value represents Catalyst's total value based on shares outstanding and share price at the end of the year. Return on capital employed is the return earned on total capital utilized by Catalyst. These measures are important indicators of ability to attract capital.

Return on capital employed excludes restructuring costs and asset-impairment charges; source: PricewaterhouseCoopers.

# Action on credit facility provides competitive advantage

Catalyst moved expeditiously to replace its operating credit facility well before its 2009 maturity. During 2008 it secured a new \$330-million asset-based facility with a five-year term. Early action enabled Catalyst to close this transaction before the global credit-market meltdown. The extension of the maturity date to 2013 gives the company an advantage over competitors faced with refinancing under current credit conditions. The covenants and other terms of the facility are acceptable, and the relative security it provides has been well received by customers.

Catalyst developed Electracote Brite in 2008, a higher-bright coated grade and a lower-cost alternative to No. 4 coated. It offers cost advantages to customers while meeting end-use performance requirements – and at the same time delivers acceptable returns to Catalyst. Additional grade flexibility was developed at Powell River Division. Efforts continued to transition the No. 11 paper machine from newsprint to higher-value uncoated production and successful trials were completed to increase uncoated grade flexibility on the No. 9 paper machine. Product innovation, in combination with a successful transition to a more streamlined and centralized service delivery team structure, was a basis for continued strong customer relations and new business wins during 2008. Product evaluations were consistently high relative to industry averages and complaints were reduced.

#### Customers

|                                 | <br>2008   | <br>2007   | <br>2006   | <br>2005   | <br>2004   |
|---------------------------------|------------|------------|------------|------------|------------|
| Evaluations vs industry average |            |            |            |            |            |
| Coated paper                    | above      | above      | above      | below      | above      |
| Uncoated paper                  | above      | above      | above      | above      | below      |
| Directory paper                 | above      | above      | above      | above      | at         |
| Newsprint                       | above      | at         | below      | below      | above      |
| Complaints received             | 976        | 1,135      | 1,191      | 1,255      | 1,388      |
| Claims paid (\$ millions)       | \$<br>0.95 | \$<br>1.20 | \$<br>1.25 | \$<br>3.78 | \$<br>3.36 |

2008 Performance excluding Snowflake: 828 complaints received, \$0.63 million claims paid Evaluations vs. industry average in 2008 did not include Snowflake 2006 and 2007 figures updated to reflect accounting adjustments

#### "Perspectives"

# Sustainability and the bottom line

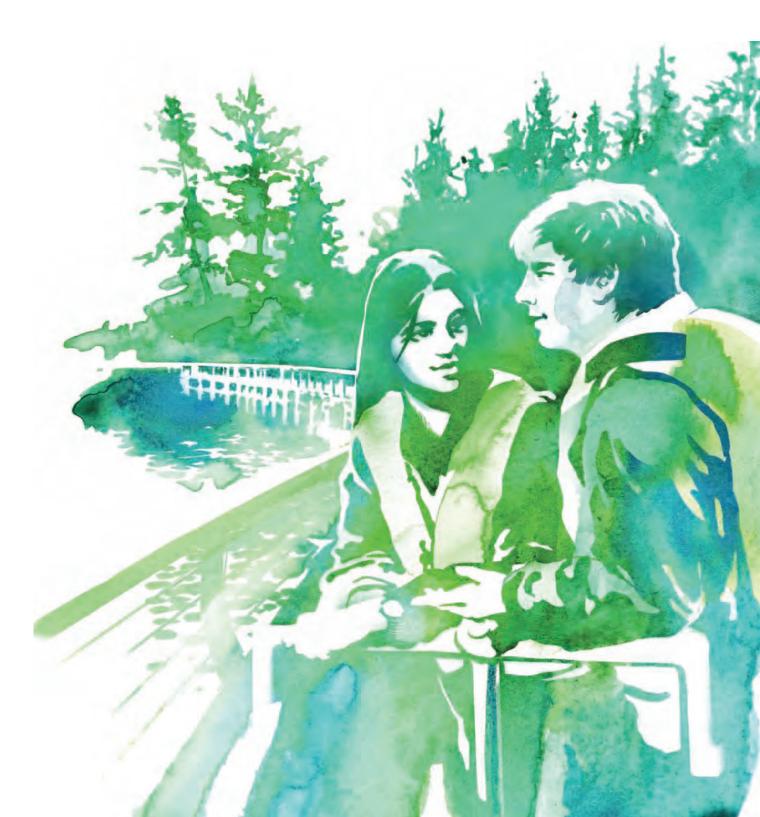
Is there a clear connection between voluntary corporate responses to stakeholder expectations, in areas such as environmental performance, and bottom-line performance?

"My organization has been studying the impact of sustainability practices and strategies on companies' financial returns for over a decade now, and the evidence is unequivocal: Companies that can manage the risks and capitalize on the opportunities created by the growing importance of environmental and social issues are, on the whole, simply better managed overall and tend to be financial outperformers. The "sustainability performance premium" for the 27 global forest products companies we follow has been roughly 20 per cent annually since 2006, and there's every likelihood it will increase."

- Dr. Matthew Kiernan, Chief Executive, Innovest Strategic Value Advisors, Toronto

# new relationships with employees and communities

Catalyst and the communities in which its mills are located are evolving. Competitive realities require more flexible, cost-effective and smaller operations. At the same time, demographic and social developments are changing the profile of former "mill towns" as they strive to become more economically diversified.



Such changes inevitably alter the relationship between Catalyst and both its work force and host communities. In this respect 2008 was an important year as labour agreements covering most of Catalyst's Canadian workers expired and were renegotiated against a backdrop of further work force reductions. As well, the company continued to intensify talks with local governments regarding the importance of municipal tax competitiveness now and in future.

#### Labour agreements

New collective agreements were reached with the seven Communications, Energy and Paperworkers Union of Canada (CEP) locals that represent workers at Catalyst's four paper mills in British Columbia, and with the one Pulp, Paper and Woodworkers of Canada (PPWC) local at Crofton.

Early agreements with the CEP locals at Port Alberni were a key element of a broader arrangement that enabled the restart of the No. 4 paper machine. The agreements included early retirement and severance provisions and a new five-shift structure with earned time off built in, and will be key to achieving the \$80-per-tonne labour cost target.

Based on these agreements and some municipal tax relief from the City of Port Alberni, Catalyst is making a \$12-million capital expenditure to increase capacity of the thermo-mechanical pulp mill at Port Alberni, further improving the division's cost structure by reducing use of highercost de-inked pulp.

Agreements were reached and ratified in late 2008 with the remaining CEP locals and with the PPWC local. In all cases, the agreements are for four-year terms and provide compensation consistent with industry pattern agreements. The PPWC agreement included establishment of a joint committee and other specific measures aimed at achieving the \$80 target, while at the same time easing the impact of the transition to a smaller work force.

A Cost Reduction Team was established and people whose regular positions are eliminated will be assigned to it, reducing the need for contract, casual and overtime hours. It will operate for three years, by which time retirements are expected to bring employment down to a level consistent with cost-competitive mills.

The agreements included a commitment to complete plans which will assist Catalyst in reaching its \$80 target at each of its mills. In the absence of a joint plan of action, Catalyst will work toward the \$80 objective, within the terms of the collective agreements.

#### **Employment reductions**

There were 635 fewer people working at Catalyst's Canadian operations at the end of 2008 than at the beginning of the year – a reduction in the work force of approximately 21 per cent. Reductions occurred at all manufacturing facilities, however, the biggest was associated with the sawdust pulp and white top linerboard closure at Elk Falls, where the work force was reduced by roughly one-half (a result also reflecting layoffs associated with the indefinite idling of the No. 1 paper machine there).

#### Total employees and payroll

| Year | Work force | Total paid<br>(in millions) |
|------|------------|-----------------------------|
| 2008 | 2,711      | \$264                       |
| 2007 | 3,023      | \$304                       |
| 2006 | 3,655      | \$316                       |
| 2005 | 3,729      | \$317                       |
| 2004 | 3,861      | \$321                       |

2008 work force excluding Snowflake: 2,389 2008 payroll excluding Snowflake: \$242

Work force figures exclude vacancies, previous years' figures updated for consistency; total paid figures include all salaries and wages paid, excluding benefits and severance While individual outcomes were in many cases only confirmed by a seniority-based bumping process that extended over months, impacted employees received notification (in person in the large majority of cases) within a week of the Elk Falls closure announcement.

There was extensive written and in-person communication with employees at the division over the period in which the employment reductions were implemented, including updates on seniority lists, information sessions on topics such as pensions, and an increased frequency of staff meetings and opportunities for informal dialogue.

A joint union-management adjustment committee was formed to facilitate training and the process through which large numbers of senior employees bumped into new roles. Agreement was reached on a leave-of-absence program enabling laid-off employees to pursue other employment or educational opportunities while retaining their recall rights.

While the sawdust pulp and white top linerboard closure affected employee morale at Elk Falls, machine production and efficiency performance remained strong during 2008, a testament to the professionalism of the people affected by and involved in this difficult transition.



#### Tax competitiveness

Catalyst's British Columbia mills contribute, on average, 30 per cent of total municipal government property tax revenues in the four communities where they are located. Mill rates are as much as 26 times the ones applied to assessed residential values.

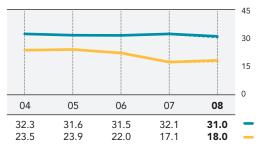
Property tax payments in 2008 in these four municipalities were \$23 million (excluding the school levy), compared with an estimated \$4 million to \$8 million worth of municipal services consumed.

While major industry has historically carried a disproportionately large local tax burden,

Catalyst believes this is not a sustainable model in a highly competitive industry. Major industry property taxes in the company's four mill operating communities in British Columbia are well above provincial and North American norms, and represent a significant competitive burden.

In 2008, Catalyst intensified discussions with government officials in these mill communities recommending a consumption-based taxation model as a fair and equitable basis to levy taxes for each taxpayer class. The company has identified municipal property tax reduction in 2009 as an urgent priority.

# Property and other taxes paid (\$ millions)



••• 2008 total excluding Snowflake: 30.7

2008 total excluding Snowflake: 17.8

Property

Other

2007 property tax figure updated to correct a calculation error

Note: \$18.0 million in other taxes paid is included within the economic impact figures in the first table on page 21

### "Perspectives" Employees' comments

Preparation of this report involved a confidential e-survey, through which employees provided input on topics to include and on performance and outlooks. The following were among comments from various employees regarding Catalyst's priorities for 2009.

"The biggest challenge for the year will be improving safety performance and maintaining productivity and quality, with the significant personnel and manning changes that are occurring as a result of closures and the \$80-per-tonne labour cost target."

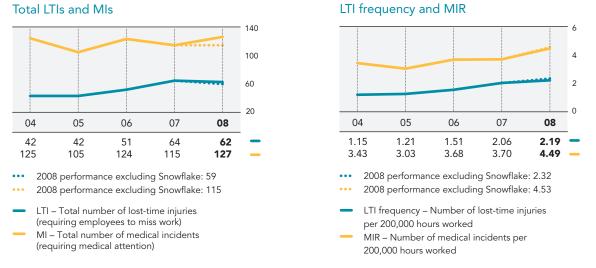
"Managing the difficult economic situation in the context of shrinking demand for our products; continuing to limit the effect on our customers of our internal issues such as downsizing, fibre supply and variability, machine closures and labour issues."

"Job loss or the threat of job loss is such a huge negative distraction on people's mind. It may not be possible but would be nice for management to say, 'We can make it work with the people and the machines we have right now'."

"In terms of sustainability I see safety as most important. Ground is being lost, people are giving up and our reputation amongst the investment analysts and shareholders is at risk if higher than expected numbers of people continue to be injured."

"Restore investor confidence by stabilizing labour relations and focusing on the future by establishing a clear vision of what success looks like. Right now, it appears as if there is no plan and we do not project the image of a strong forward-thinking company."





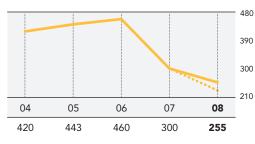
2006 and 2007 figures updated to reflect post-year-end adjustments based on injury progression/duration



••• 2008 performance excluding Snowflake: 88

Donations to Canadian and U.S. charities as reported for tax purposes





••• 2008 performance excluding Snowflake: 229

Employee plus corporate donations



# sustainable product pedigrees

Long-standing concern about the environmental impacts of manufacturing and related industrial processes has recently shifted, broadened and become more concrete. Consumers, who want to make a difference through their own choices, increasingly seek assurances that specific products contain responsibly sourced raw materials and have additional sustainability attributes embedded in them.

- addad

In the forest products context, this translates into a desire for certainty that wood fibre came from well-managed forests or other sustainable sources, and such assurances are commonly formalized through independent certification programs. There is also growing interest, as there is across all forms of consumption, in the carbon footprint of paper.

Catalyst sees effective responses to these imperatives as not only a requirement of doing business with many customers, but also as a key opportunity to competitively differentiate what would otherwise be inter-changeable commodities.

While not a forest manager, Catalyst has long engaged with its suppliers to advance and verify sustainable forest management, and has developed extensive recycled production capacity. In addition, Catalyst has achieved sector-leading carbon and energy management that reduces the environmental footprint of its production, and has enabled it to provide manufactured carbon-neutral products.

#### Fibre supplies

Fibre supplies that are either recycled or carry a credible third-party certification are the most likely to provide the sustainability assurances customers want. While various certification systems are actively used in North America, Forest Stewardship Council (FSC) certification has the strongest market appeal, at least in particular segments.

#### Recycled production

In 2008, Catalyst acquired a second exclusively recycled manufacturing facility. The Snowflake recycled newsprint mill added 347,000 tonnes of capacity, representing nearly 15 per cent of Catalyst's total production capacity.

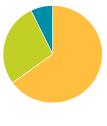
Catalyst has also operated the Paper Recycling Division at Coquitlam since 2003. It produces de-inked pulp for use at Catalyst's British Columbia paper mills, and is an important part of the overall fibre-supply mix for these facilities.

Operational changes at PRD resulted in a one-per-cent increase in yield, or finished product per tonne of recovered paper in 2008 and in an associated seven-per-cent reduction in energy consumption.

Use of recovered paper lessens demands on virgin fibre supplies, allows for less energy-intensive production and prevents carbon dioxide releases that would otherwise occur when paper decomposes in landfills.

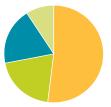
Through the combined production of newsprint at Snowflake and de-inked pulp at PRD, recovered paper made up 19 per cent of Catalyst's total fibre supply in 2008 (up from six per cent in 2007), and the company's finished products had an average recycled content of 17 per cent (also up from six per cent in 2007).

#### Geographic breakdown: non-recycled fibre





#### Fibre type and percentage



Sawmill wood chips 52%
 Pulp logs 20%
 Recovered paper 19%
 Sawdust 9%



#### Certified production

Catalyst actively encourages its fibre suppliers to obtain third-party certification, and can verify using the PricewaterhouseCoopers Independent Chain of Custody Standard, that select products contain only fibre that is certified to one of the three main forest-management standards.<sup>1</sup> Tonnage of certified product sold and number of customers purchasing it both increased significantly in 2008.

Catalyst expects to expand its use of FSC certification based on work done in 2008, in anticipation of the availability of the first significant supply of FSC-certified fibre from coastal British Columbia forests (see page 22).

A new chain-of-custody management system, development of which was under way at the end of 2008, is intended to provide for either FSC or PEFC<sup>2</sup> certification and labeling of select Catalyst products. Paper would be certified based on use of fibre from either FSC- or SFI-certified forests and/or post-consumer waste. Market pulp would be certified based on use of fibre from FSC-certified forests and/or fibre that meets the FSC controlled-wood standard.

These certifications will complement an existing FSC certification at PRD, which verifies production using post-consumer waste, and which is expected to be extended to Snowflake in 2009.

#### Carbon management

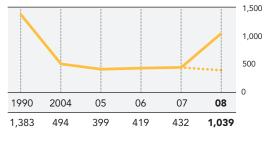
A long-standing focus on reduced energy use and extensive self-generation using renewable and carbon-neutral fuels (biomass) are key aspects of Catalyst's carbon-management approach and have served to reduce fossil fuel reliance and energy costs.

They are also the foundation for the Catalyst Cooled<sup>™</sup> product offering. Carefully selected offsets counter-balance the limited carbon emissions associated with the manufacture of these products. Launched in 2007 in partnership with Rolling Stone magazine – the first such mass-market usage – Catalyst Cooled<sup>™</sup> generated additional sales during 2008.

Of further note is Catalyst's particular expertise with lighter basis-weight papers. Not only is less fibre required for the manufacture of these products, but they require less energy throughout the production, shipping and printing stages.

In 2008, 73 per cent of Catalyst's total energy use came from renewable sources (87 per cent at its Canadian operations).

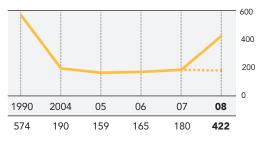
#### GHG emissions absolute (thousand tonnes CO<sub>2</sub>e)



••• 2008 performance excluding Snowflake: 380

2006 and 2007 figures updated to reflect calculation adjustments

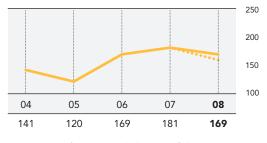
#### GHG emissions intensity (kg CO<sub>2</sub>e per tonne)



••• 2008 performance excluding Snowflake: 175

#### GHG emissions indirect

(World Resources Institute Scope 2, thousand tonnes  $\rm CO_2e$ )



••• 2008 performance excluding Snowflake: 159

1 Canadian Standards Association, Sustainable Forestry Initiative (SFI), and Forest Stewardship Council

2 Programme for the Endorsement of Forest Certification schemes

#### Carbon and climate change

GHG emissions at Catalyst's Canadian operations in 2008 were 73 per cent below 1990 levels on an absolute basis and 70 per cent below 1990 levels on an intensity basis. Catalyst committed to a 70-per-cent reduction in absolute GHG emissions at these operations by 2010, relative to a 1990 baseline, as a member of the World Wildlife Fund's Climate Savers program.

Absolute GHG emissions from Canadian operations in 2008 were down 12 per cent from 2007. While this was partly a result of lower production, GHG emissions at these operations were also reduced in 2008 by three per cent from 2007 on an intensity basis, and they continue to be at or significantly below the Canadian industry average (246 kg CO<sub>2</sub>e per tonne).

Shortages of biomass – in forms such as bark, wood shavings and sawdust – continued during 2008, and limited Catalyst's ability to self-generate carbonneutral energy. This impacts GHG levels, and in 2008 it increased the extent of the payments required under a newly implemented carbon (fossil fuel) tax in British Columbia.

Catalyst's overall carbon footprint increased in 2008 with the Snowflake acquisition, a facility where the main energy source is coal and which generates all of its own electricity. In contrast to British Columbia, Arizona is largely fossil fuel-dependent for electricity generation and coal is widely used. GHG emissions intensity at Snowflake was up 15 per cent in 2008 from 2007. Contributing factors are a return to the use of lower-quality coal (see page 23) and increased landfilling of solid waste.

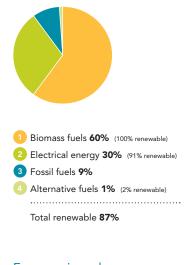
Catalyst implemented quarterly carbon accounting procedures at its operations in 2008; maintained its carbon accounting practices to the ISO 14064:2006 GHG accounting standard; and was again recognized as a Climate Disclosure Leader in Canada through the Carbon Disclosure Project, which acknowledges superior and financially relevant climaterisk transparency.

See "GHG Regulatory Landscape", page 22, for further related discussion.

# Energy efficiency and demand management

Energy efficiency, in addition to being a sustainability merit in and of itself, has been one of the foundations of Catalyst's strong carbon-related performance. Through demand management efforts, the company also contributes to efficiency and carbon reductions beyond the boundaries of its own operations.

There was limited change in intensity of fuel energy and electricity use at Catalyst's Canadian operations in 2008, which were down one per cent and up five per cent respectively. The five-per-cent increase reflected a shift to a higher proportion of paper production, which is more electricityintensive than pulp production. Energy mix and renewability – Canadian operations



#### Energy mix and renewability – corporate-wide



1 Biomass fuels **50%** (100% renewable)

2 Electrical energy 25% (91% renewable)
 3 Fossil fuels 24%

Total renewable 73%

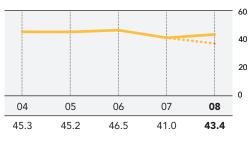


<sup>4</sup> Alternative fuels **1%** (2% renewable)

Conservation initiatives continued and focused on reducing wastes in forms such as compressed air loss and unnecessary lights. However, a slight reduction (0.6 per cent) in purchased energy requirements resulted primarily from production curtailments. Self-generation was reduced by about 25 per cent in 2008, largely due to biomass availability.

Catalyst continued to assist British Columbia's electricity utility with demand management. Catalyst is among major industrial customers that have contracted with BC Hydro to implement 150-MW curtailments on short notice during peak-demand times. This provides planning latitude that helps BC Hydro avoid costs and environmental impacts associated with fossil fuel-based back-up generation, and Catalyst is compensated for its involvement in this program and for the energy associated with any curtailments implemented.

#### Total fuel energy use (fossil fuels and biomass) (millions of GJ)

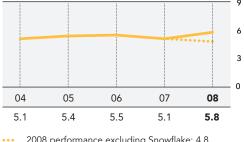


2008 performance excluding Snowflake: 36.9 ...

2007 figure updated to reflect calculation adjustments

#### Total electricity use

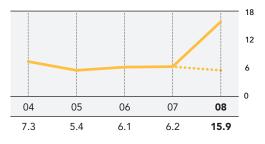
(purchased and self-generated) (millions of MWh)



2008 performance excluding Snowflake: 4.8

2007 figure updated to reflect calculation adjustments

#### Total fossil fuel use (millions of GJ)



... 2008 performance excluding Snowflake: 5.4

### "Perspectives" Market demand

With sustainable forest management now a well-entrenched factor in forest products purchasing decisions, what additional issues and criteria may come to guide customer choices in the years ahead?

"There's likely to be more of a focus on the carbon footprint of the magazine supply chain. Climate change is a priority for the Obama administration, and will grow in importance for financial markets and with the public. For paper purchasers, the focus will likely be on the types of energy used by mills and their power providers; land conversion, especially in the tropics; and the comparative footprints of paper and digital delivery. Recovery of magazines will also grow in importance in an effort to reduce landfill methane releases and out of concern about future fibre shortages."

- David Refkin; President, National Recycling Coalition; Treasurer, Heinz Center for Science, Economics and the Environment; New City, New York

# data and additional reporting

Catalyst continues to strive to provide progressive and safe working environments, to make meaningful economic and other contributions within the jurisdictions where it operates, and to achieve further improvement across a wide range of measures of environmental performance.



#### Social and Economic

#### Compensation and representation

Catalyst provides a competitive base salary and benefits package for nonunionized employees, and in most cases provides additional performance-based compensation. Most non-unionized employees have defined contribution pension plans, although some longerterm employees are grandfathered in a defined benefit plan.

Compensation, benefits and pensions for represented employees are specified in collective agreements. Pensions for most of these employees are defined benefit.

Snowflake employees, at the time of the acquisition, transitioned to pension plans providing substantially comparable benefit and pension coverage.

Unions represent approximately 75 per cent of Catalyst employees. In Canada, these are: the Communications, Energy and Paperworkers Union of Canada; the Pulp, Paper and Woodworkers of Canada; the Canadian Office and Professional Employees Union; and the Christian Labour Association of Canada. In the United States, these unions are: the United Steelworkers of America; the International Brotherhood of Electrical Workers; the Carpenters Union; and the United Transportation Union.

#### Safety

There was improvement in the number of lost-time injuries and in the severity measure at Canadian operations in 2008, while medical incidents remained at the same level compared with 2007. But overall frequency measures were up and performance consistently fell short of targets. A notable exception was the strong performance at Powell River Division, where all targets were met or exceeded. There were no lost-time injuries or medical incidents in 2008 at either Paper Recycling Division or the corporate offices. Snowflake's safety performance in 2008 was generally comparable to performance in 2007.

Roll-out of a standardized tiered audit process at all operations was completed during 2008. Developed at Powell River, tiered audits increase the scope of management's direct observation of and engagement with employees regarding safety-related issues.

Plans for 2009 include hiring a full-time safety professional with corporate-wide responsibilities, while Snowflake will follow-up on an external safety audit commissioned in late 2008. Catalyst remains committed to cutting both lost-time injuries and medical incidents in half by 2010, relative to 2006.

| Health and safety                       |                            | 2008                            |                                |      |      |      |      |
|---|----------------------------|---------------------------------|--------------------------------|------|------|------|------|
|   | 2008<br>Corporate-<br>wide | Targets<br>(corporate-<br>wide) | 2008<br>Canadian<br>operations | 2007 | 2006 | 2005 | 2004 |
| Lost-time injuries <sup>1</sup>         | 62                         | 40                              | 59                             | 64   | 51   | 42   | 42   |
| Medical incidents <sup>2</sup>          | 127                        | 95                              | 115                            | 115  | 124  | 105  | 125  |
| Lost-time injury frequency <sup>3</sup> | 2.19                       | 1.46                            | 2.32                           | 2.06 | 1.51 | 1.21 | 1.15 |
| Medical incident rate <sup>4</sup>      | 4.49                       | 3.47                            | 4.53                           | 3.70 | 3.68 | 3.03 | 3.43 |
| Severity <sup>5</sup>                   | 104.5                      | 80.0                            | 99.5                           | 118  | 57   | 40   | 33   |

2006 and 2007 figures updated to reflect post-year-end adjustments based on injury progression/duration

1 Incidents requiring employees to miss work

2 Incidents requiring medical attention

3 Number of lost-time injuries per 200,000 hours worked

4 Number of medical incidents per 200,000 hours worked

5 Average number of days injuries caused employees to miss work





#### Aboriginal relations

During 2008, the Hupacasath First Nation accepted an offer to purchase two Port Alberni-area dams from Catalyst. Originally part of the infrastructure for a pulp mill, they are now used mainly to regulate water flows for the benefit of fish. Closure of the offer was extended into 2009 to facilitate transfer of a water license.

A We Wai Kai First Nation appeal of a 2005 permit amendment allowing use of coal as a supplemental fuel at Elk Falls Division was withdrawn during 2008. There were some discussions with the We Wai Kai regarding potential engagement on joint business ventures in the forest products sector. Catalyst, however, declined involvement in a We Wai Kai aquaculture funding proposal.

Catalyst is among the more than 3,500 claimants in the Little Colorado River Adjudication filed in 1978 and pending in the Superior Court of Arizona. Indian tribes and the United States contend (and Catalyst denies) that mill water withdrawals impermissibly interfere with water rights. Timing for the adjudication of the various claims remains uncertain.

Taxes

#### Economic impact

Catalyst makes a substantial contribution to the economies of the communities where it operates and the jurisdictions within which those communities are located, and to the economies of various other jurisdictions from within which it purchases goods and services. This included the following in 2008:

#### 2008 spending

| (\$ millions)                           | anadian<br>erations | Sno | wflake | ope | All<br>erations |
|---|---------------------|-----|--------|-----|-----------------|
| Fibre and other raw materials (furnish) | \$<br>413           | \$  | 70     | \$  | 483             |
| Energy                                  | 233                 |     | 17     |     | 251             |
| Other purchases                         | 578                 |     | 48     |     | 626             |
| Capital spending                        | 34                  |     | 8      |     | 42              |
| Totals                                  | \$<br>1,258         | \$  | 144    | \$  | 1,402           |

Variations on totals due to rounding

With the addition of salaries and wages (\$264 million) and taxes paid (\$49 million), as reported in the table below, the total direct economic impact of Catalyst's activities during 2008 was \$1.7 billion.

| Other taxes <sup>3, 4</sup>                | <b>18.0</b> <sup>5</sup> | 17.1 | 22.0 | 23.9 | 23.5 |
|--|--------------------------|------|------|------|------|
| Total                                      | 31.0                     | 32.1 | 31.5 | 31.6 | 32.3 |
| Corporate and support offices <sup>2</sup> | 0.6                      | 0.8  | 0.2  | 0.5  | 0.5  |
| Snowflake                                  | 0.4                      | -    | _    | _    | -    |
| Powell River <sup>1</sup>                  | 6.0                      | 5.9  | 6.1  | 6.3  | 6.5  |
| Port Alberni                               | 6.5                      | 7.2  | 7.4  | 7.4  | 7.7  |
| Paper Recycling (Coquitlam, B.C.)          | 1.4                      | 1.4  | 1.4  | 1.3  | 1.3  |
| Elk Falls (Campbell River, B.C.)           | 7.6                      | 8.0  | 8.1  | 8.1  | 8.4  |
| Crofton                                    | 8.5                      | 8.8  | 8.3  | 8.0  | 7.9  |
| Property taxes                             |                          |      |      |      |      |
| (\$ millions)                              | 2008                     | 2007 | 2006 | 2005 | 2004 |
| IdXes                                      |                          |      |      |      |      |

1 2007 figure updated to correct a calculation error

2 2004 includes a rebate received after an appeal of 1996-1999 property taxes by head office landlord

3 Includes income taxes; large corporation capital taxes; capital, logging and sales taxes; BC carbon tax

4 2008 total excluding Snowflake: \$17.8

5 \$18.0 million in other taxes paid is included in the economic impact figures in the 2008 spending table above

#### Environmental

#### **Great Bear Rainforest**

Catalyst continued to engage with environmental groups and other stakeholders regarding the transition to ecosystem-based management (EBM) in the Great Bear Rainforest on British Columbia's central coast, by March 31, 2009. Engagement occurs mainly through Catalyst's membership in the Coast Forest Conservation Initiative (CFCI).

Work to meet implementation milestones, including on-the-ground harvesting and management changes, continued in 2008. A Forest Stewardship Council (FSC) audit was conducted in late 2008 to identify gaps between the EBM framework and FSC standards. CFCI members will review the audit outcome and make a decision regarding pursuit of certification in early 2009.

#### Biomass generation at Snowflake

A third-party-owned, 25-MW energy generating facility was commissioned on the Snowflake mill site during 2008. While producing power for sale rather than mill use, the facility nevertheless provides various environmental and economic benefits.

Most notably, it represents a productive use of sludge from the mill, which together with locally sourced forest thinnings, makes up the facility's fuel. The facility is expected to consume 75 per cent of Snowflake's total sludge production of approximately 250 tonnes per day to produce energy. This prevents both the costs and GHG emissions that would otherwise be associated with landfilling the sludge.

The energy produced is carbon-neutral and state-approved as green energy, and will assist its purchasers in meeting regulatory requirements for renewable energy use.

#### GHG regulatory landscape

Catalyst operates largely in British Columbia – a leading North American jurisdiction in terms of the breadth and stringency of its climate change initiatives. These include a broad-based carbon tax and a commitment to cut province-wide emissions by one-third by 2020, relative to 2007 levels. Catalyst also operates in Arizona, which has committed to reduce its emissions to 2000 levels by 2020, and to cut them to half of 2000 levels by 2040. Catalyst is actively engaged in GHGrelated policy development at various levels, including planning for a regional cap-and-trade system through the Western Climate Initiative. Catalyst's priorities are to ensure that it receives adequate recognition for the reductions already achieved at its Canadian operations, and that there is appropriate treatment of co-generation from renewable fuels.

#### Clean production initiative

Catalyst worked in partnership with World Wildlife Fund Canada in 2008 to roll out the Clean Production Initiative (CPI) at its Canadian operations. This involves a transition to direct measurement of priority emissions. Testing to date has confirmed that the scope of such emissions is frequently smaller than previous estimates suggested and has provided a basis for emissions reduction planning.

Procurement staff were briefed on substance-specific and supply-region issues related to chemical supplies. Chemical reductions, together with efforts to reduce fibre losses in mills, will be components of the CPI going forward. Cost savings associated with reduced fibre losses alone are expected to more than offset CPI implementation costs. Community advisory forums are being used to inform and engage local residents regarding the CPI.

# Air

Odour

Total reduced sulphur (TRS) results from kraft pulp production and has been a long-standing focal point at Crofton and Elk Falls divisions. On average in 2008, Catalyst's Canadian operations met the relevant provincial ambient air quality standards 99.7 per cent of the time.

Crofton completed equipment replacements and upgrades in 2008 to improve the reliability of odourous gas collection. Elk Falls kraft pulp production ceased during 2008.

Powell River experienced odour issues during an unforeseen maintenance-related shut-down of a power boiler in July 2008. This resulted from on-site stockpiling of odourous sludge that would normally be used as fuel. Odour impacts were, however, managed effectively during a longer planned shut-down in December.

#### Particulates

Particulates consist of extremely small air-borne particles that originate from industrial combustion processes and various other sources. In 2008, the company's Canadian divisions met the relevant provincial ambient air quality standards 100 per cent of the time. Particulate emissions were up at Crofton (but below 2006 levels) in part as a result of high salt content in the bark available to this division. However, salt-based particulates do not have the same health impacts associated with them as do other types, and discussions were initiated with provincial regulatory authorities regarding possible allowances in this regard, so as to avoid constraints on carbon-neutral energy generation.

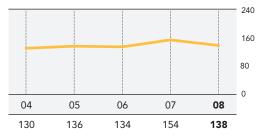
Snowflake upgraded emissions-control equipment on its main power boiler in 2008, improving its ability to capture both particulates and sulphur oxides and enabling it to revert to use of higher sulphur-content and more economical coal supplies (larger volumes of which are required to generate the same energy). This change in supplies accounted for increases in particulates and sulphur oxides during 2008. Nevertheless, air-quality permit compliance was maintained.

#### Other issues

Power boiler dioxin and furan emissions at Catalyst's Canadian paper mills were down significantly in 2008. While operational measures likely contributed, unrelated factors such as testing conditions and the salt content in biomass fuels heavily influence results, which can be highly variable. Dioxins emissions are a result of salt in bark from logs that have been transported in marine booms.

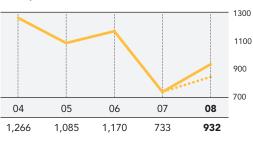
Releases of ozone-depleting substances – use of which is being phased out at Catalyst – are reportable above defined thresholds in both British Columbia and Arizona. Releases totalled 337 kg in 2008 (see Appendix 1, page 32).

#### Total TRS (tonnes/year)



Relevant at Canadian operations only

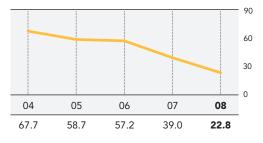
#### Total particulate (tonnes/year)



••• 2008 performance excluding Snowflake: 841

Previous years' particulate results have been updated; previously reported figures reflected permit limits rather than actual emissions at one operation and were, therefore, significantly overstated

# Power boiler dioxin and furan emissions (grams/year)



Relevant at Canadian operations only

2006 and 2007 figures updated, a calculation error resulted in overstatement of 2007 results

All figures above based on actual test results; NPRI data may differ because they include other sources and utilize emissions factors

#### Air emissions (by mill)

| · · · · · · · · · · · · · · · · · · ·                       | 2008            | 2007            | 2006            | 2005            | 2004        |
|---|-----------------|-----------------|-----------------|-----------------|-------------|
| Crofton   |                 |                 |                 |                 |             |
| Total GHGs as kg CO <sub>2</sub> e/year <sup>1</sup>        | 162,866,000     | 149,920,000     | 131,293,000     | 127,325,000     | 153,407,000 |
| Total GHGs as kg CO <sub>2</sub> e/adt <sup>1</sup>         | 224             | 194             | 179             | 166             | 196         |
| Particulate matter kg/day                                   | 906             | 722             | 1,059           | 850             | 1,235       |
| Particulate matter kg/adt                                   | 0.43            | 0.34            | 0.53            | 0.40            | 0.58        |
| Sulphur Oxides kg/day                                       | 9,392           | 11,026          | 11,324          | 6,210           | 9,281       |
| Sulphur Oxides kg/adt                                       | 4.45            | 5.20            | 5.64            | 2.96            | 4.34        |
| TRS kg/day  | 192             | 245             | 195             | 207             | 209         |
| TRS kg/adt <sup>2</sup>                                     | 0.180           | 0.211           | 0.197           | 0.195           | 0.175       |
| Power Boiler Dioxin ng/m³ TEQ                               | 0.03            | 0.09            | 0.05            | 0.08            | 0.32        |
| Ambient TRS % compliance A level 24-hr average <sup>1</sup> | 99.1            | 97.7            | 98.3            | 95.8            | 97.8        |
| Ambient PM2.5 98th percentile (ug/m <sup>3</sup> ) $^3$     | 13.9            | 13.9            | 13.6            | 14.5            | n/a         |
| Ambient PM10 % compliance A level <sup>3</sup>              | 100             | 100             | 99.99           | 100             | 100         |
| Elk Falls   |                 |                 |                 |                 |             |
| Total GHGs as kg CO <sub>2</sub> e/year                     | 139,351,000     | 170,967,000     | 213,800,000     | 185,201,000     | 239,409,000 |
| Total GHGs as kg $CO_2e/year$                               | 246             | 248             | 213,000,000     | 229             | 237,407,000 |
| Particulate matter kg/day                                   | 1,329           | 1,215           | 2,019           | 2,005           | 1,995       |
| Particulate matter kg/adt                                   | 0.68            | 0.54            | 0.84            | 0.84            | 0.86        |
| Sulphur Oxides kg/day <sup>4</sup>                          | 2,089           | 1,881           | 2,500           | 2,093           | 2,607       |
| Sulphur Oxides kg/adt <sup>4</sup>                          | 1.00            | 0.84            | 1.04            | 0.95            | 1.19        |
| TRS kg/day  | 184             | 176             | 171             | 165             | 146         |
| TRS kg/adt  | 0.23            | 0.19            | 0.22            | 0.23            | 0.28        |
| Power Boiler Dioxin ng/m³ TEQ                               | 0.04            | 0.37            | 0.13            | 0.04            | 0.05        |
| Ambient TRS % compliance A level 24-hr average              | 100             | 99.7            | 98.6            | 99.5            | 97.3        |
| Ambient PM2.5 98th percentile (ug/m³)                       | 11.9            | 13.1            | 12.8            | 25.7            | n/a         |
| Ambient PM10 % compliance A level                           | 100             | 100             | 100             | 100             | 99.2        |
|   |                 |                 |                 |                 |             |
| Paper Recycling   | ( 400 000       | 7 ( 5 ) 0 4 0   | F (02.000       | 0 170 110       | 7 054 004   |
| Total GHGs as kg CO <sub>2</sub> e/year                     | 6,100,000<br>47 | 7,653,240<br>54 | 5,603,000<br>40 | 8,173,113<br>56 | 7,054,236   |
| Total GHGs as kg $CO_2e/adt$                                | 47<br>0.12      | 54<br>0.27      | 40<br>0.49      | 56<br>0.30      | 47<br>0.33  |
| Particulate matter kg/day <sup>5</sup>                      | 0.12            | 0.27            | 0.49            | 0.30            | 0.33        |
| Particulate matter kg/adt <sup>5</sup>                      | 0.000           | 1.820           | 1.893           | 0.001           | 1.370       |
| Sulphur Oxides kg/day                                       | 0.040           | 0.0046          | 0.0043          | 0.082           | 0.0034      |
| Sulphur Oxides kg/adt                                       | 0.0001          | 0.0046          | 0.0043          | 0.0002          | 0.0034      |

1 2006 and 2007 figures updated to reflect calculation adjustments

2 2007 figure updated to correct calculation error involving use of total tonnage instead of pulp tonnage only

3 2007 figures updated to reflect calculation adjustments

4 2006 and 2007 figures updated to correct a calculation error that resulted in previous understatements

5 All previous years' particulate results have been updated; previously reported figures reflected permit limits rather than actual emissions and were, therefore, significantly overstated

adt – Air-dried tonnes

n/a – Not available

ng – Nanogram

PM – Particulate matter

TEQ – Dioxin equivalent units

ug – Microgram

#### Air emissions (by mill) (continued)

| Air emissions (by mill) (continued)            |             |             |            |             |             |
|--|-------------|-------------|------------|-------------|-------------|
|  | 2008        | 2007        | 2006       | 2005        | 2004        |
| Port Alberni                                   |             |             |            |             |             |
| Total GHGs as kg CO,e/year                     | 36,708,000  | 61,619,000  | 44,977,000 | 52,844,000  | 61,231,000  |
| Total GHGs as kg $CO_2e/adt$                   | 132         | 215         | 134        | 153         | 139         |
| Particulate matter $kg/day$                    | 20          | 40          | 98         | 107         | 215         |
| Particulate matter kg/adt                      | 0.024       | 0.043       | 0.100      | 0.114       | 0.180       |
| Sulphur Oxides kg/day                          | 427         | 477         | 603        | 660         | 900         |
| Sulphur Oxides kg/adt                          | 0.45        | 0.50        | 0.65       | 0.70        | 0.74        |
| Power Boiler Dioxin ng/m <sup>3</sup> TEQ      | 0.27        | 0.41        | 0.36       | 0.12        | 0.17        |
| Ambient PM10 % compliance A level              | 100         | 100         | 100        | 100         | 100         |
|  |             |             |            |             |             |
| Powell River                                   |             |             |            |             |             |
| Total GHGs as kg $CO_2e/year$                  | 34,557,000  | 41,621,000  | 22,917,000 | 24,978,000  | 33,023,000  |
| Total GHGs as kg CO <sub>2</sub> e/adt         | 73.6        | 85.9        | 48.9       | 56.1        | 77.5        |
| Particulate matter kg/day <sup>1</sup>         | 42          | 33          | 28         | 9           | 23          |
| Particulate matter kg/adt                      | 0.03        | 0.02        | 0.02       | 0.01        | 0.02        |
| Sulphur Oxides kg/day <sup>1</sup>             | 277         | 189         | 126        | 235         | 112         |
| Sulphur Oxides kg/adt                          | 0.215       | 0.143       | 0.098      | 0.193       | 0.096       |
| Power Boiler Dioxin ng/m³ TEQ <sup>2</sup>     | 0.01        | 0.03        | 0.02       | 0.01        | 0.02        |
| Ambient TRS % compliance A level 24-hr average | 100         | 100         | 100        | 100         | 100         |
| Ambient PM2.5 98th percentile (ug/m³)          | 9.0         | 6.9         | 14.0       | 7.0         | n/a         |
| Ambient PM10 % compliance A level              | 100         | 100         | 100        | 100         | 100         |
|  |             |             |            |             |             |
| Snowflake (all figures are for full year)      |             |             |            |             |             |
| Total GHGs as kg CO <sub>2</sub> e/year        | 907,823,000 | 871,486,485 |            | 865,175,394 | 756,182,779 |
| Total GHGs as kg CO <sub>2</sub> e/adt         | 2,264       | 1,961       | 1,900      | 1,902       | 1,773       |
| Particulate matter kg/day                      | 345         | 267         | 365        | 346         | 287         |
| Particulate matter kg/adt                      | 0.31        | 0.21        | 0.29       | 0.28        | 0.25        |
| Sulphur Oxides kg/day                          | 6,330       | 3,844       | 4,710      | 3,769       | 5,021       |
| Sulphur Oxides kg/adt                          | 5.76        | 3.07        | 3.77       | 3.02        | 4.30        |

1 Conclusive reasons for increases in  $SO_2$  and particulates at Powell River could not be determined, although possible factors have been identified and will be explored further if 2009 test results warrant

2 2004 and 2005 figures updated to reflect calculation adjustments



#### Water

#### Use and impacts

Intensity of water use was down three per cent at Catalyst's Canadian operations in 2008 compared with 2007. Including Snowflake, water use intensity was down six per cent from 2007, reflecting the lower water usage associated with a larger component of recycled production.

Powell River had good performance, in significant part due to the addition in 2007 of a bleach plant cooling system, which reduced the need for water to be added to cool effluent in the summer.

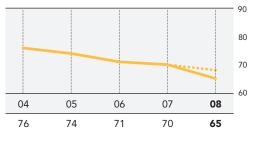
Catalyst's Canadian mills continued their involvement in the federal Environmental Effects Monitoring program. Work during 2008 largely focused on study design, with interpretative reports for the previous cycle having been completed in 2007. Recent results generally indicate decreases in concentrations of contaminants such as dioxins and furans.

#### Other issues

Complex issues arose at Port Alberni relating to two dams Catalyst owns on Great Central Lake. Updated storm estimates required lowering the minimum water level by approximately one metre to avoid possible over-topping and flooding. Catalyst worked with the federal fisheries department, residents, hatcheries and other stakeholders through the Somass Basin Water Management Plan Forum to manage the impacts.

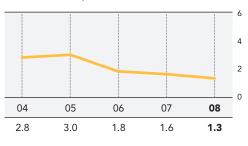
The dams are currently used mainly to regulate water flows for the benefit of fish, and they are expected to be sold to the Hupacasath First Nation in early 2009 (see page 21).

### Company average water use (m³/tonne)



••• 2008 performance excluding Snowflake: 68

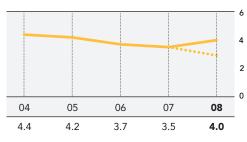
#### Total BOD (thousands of tonnes/year)



Relevant at Canadian operations only

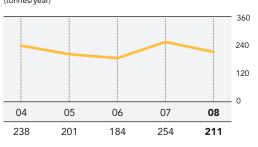
#### Total TSS

(thousands of tonnes/year)



••• 2008 performance excluding Snowflake: 2.9

#### Total AOX (tonnes/year)



Relevant at Canadian operations only

# corporate-wide water use intensity was down by six per cent



#### Effluent (by mill)

| Effluent (by mill)  | 2008  | 2007  | 2006  | 2005       | 2004         |
|---|-------|-------|-------|------------|--------------|
|   | 2000  | 2007  | 2000  | 2003       | 2004         |
| Crofton   |       |       |       |            |              |
| TSS kg/day  | 3,095 | 2,731 | 3,376 | 3,311      | 3,674        |
| TSS kg/adt  | 1.6   | 1.3   | 1.7   | 1.5        | 1.8          |
| BOD kg/day  | 1,012 | 864   | 1,230 | 1,270      | 1,566        |
| BOD kg/adt  | 0.51  | 0.41  | 0.61  | 0.59       | 0.76         |
| AOX kg/day  | 408   | 448   | 305   | 330        | 422          |
| AOX kg/adt <sup>1</sup>                                       | 0.32  | 0.34  | 0.31  | 0.31       | 0.33         |
| 2378TCDD ppq  | n/d   | n/d   | n/d   | n/d        | n/d          |
| 2378TCDF ppq  | n/d   | n/d   | n/d   | n/d        | n/d          |
| Trout toxicity % compliance                                   | 100   | 100   | 100   | 100        | 94           |
| Elk Falls   |       |       |       |            |              |
| TSS kg/day  | 2,071 | 3,737 | 3,590 | 4,970      | 4,950        |
| TSS kg/adt  | 1.3   | 2.0   | 1.6   | 2.3        | 2.3          |
| BOD kg/day  | 1,390 | 2,404 | 2,600 | 5,000      | 4,150        |
| BOD kg/ady<br>BOD kg/adt                                      | 0.90  | 1.26  | 1.14  | 2.26       | 1.89         |
| AOX kg/day  | 168   | 248   | 199   | 2.20       | 231          |
| AOX kg/adt  | 0.22  | 0.33  | 0.25  | 0.35       | 0.41         |
| 2378TCDD ppq  | n/d   | n/d   | n/d   | n/d        | n/d          |
| 2378TCDF ppq  | n/d   | 4.1   | n/d   | n/d        | n/d          |
| Trout toxicity % compliance                                   | 100   | 100   | 100   | 96         | 94           |
|   | 100   | 100   | 100   | 70         | 71           |
| Paper Recycling   |       |       |       |            |              |
| TSS kg/day  | 443   | 713   | 396   | 428        | 387          |
| TSS kg/adt  | 1.2   | 1.8   | 0.9   | 1.1        | 1.0          |
| BOD kg/day  | 703   | 1,210 | 1,103 | 603        | 467          |
| BOD kg/adt  | 1.96  | 3.07  | 2.51  | 1.50       | 1.15         |
| Trout toxicity % compliance                                   | n/a   | n/a   | 100   | 100        | 100          |
|   |       |       |       |            |              |
| Port Alberni  | 352   | 389   | 354   | 500        | 1.040        |
| TSS kg/day  | 0.5   | 0.5   | 0.4   | 0.6        | 1,060<br>0.9 |
| TSS kg/adt  | 290   | 305   | 400   | 0.8<br>450 | 0.9<br>700   |
| BOD kg/day  |       |       |       |            |              |
| BOD kg/adt  | 0.38  | 0.38  | 0.43  | 0.49       | 0.60         |
| Trout toxicity % compliance                                   | 100   | 100   | 100   | 100        | 100          |
| Powell River  |       |       |       |            |              |
| TSS kg/day  | 1,994 | 1,991 | 2,465 | 2,400      | 2,100        |
| TSS kg/adt  | 1.5   | 1.5   | 1.9   | 1.7        | 1.5          |
| BOD kg/day  | 745   | 797   | 778   | 1,000      | 700          |
| BOD kg/adt  | 0.6   | 0.6   | 0.6   | 0.7        | 0.5          |
| Trout toxicity % compliance                                   | 100   | 96.6  | 100   | 100        | 100          |
| <b>Snowflake</b> (all figures are for full year) <sup>2</sup> |       |       |       |            |              |
| TSS kg/day  | 4,009 | 2,893 | 3,068 | 1,894      | 1,744        |
| TSS kg/day<br>TSS kg/adt                                      | 3.5   | 2,073 | 2.5   | 1,094      | 1,744        |
| 100 kg, ddt   |       | ۷.٦   | 2.5   | 1.5        | 1.5          |

1 2007 figure updated to reflect calculation adjustments

2 TSS levels, while up significantly, remained within permit levels and operational changes were made during scheduled maintenance of the effluent treatment plant in late 2008 n/d – Non-detectable (test result below two parts per quadrillion) n/a – Not applicable

2378TCDD, 2378TCDF – Specific dioxin and furan substances

#### Water and energy use (by mill)

|  | 2008       | 2007       | 2006       | 2005       | 2004       |
|--|------------|------------|------------|------------|------------|
| Crofton                                    |            |            |            |            |            |
| Water use m³/adt                           | 73         | 68         | 65         | 68         | 66         |
| Fuel energy usage GJ <sup>1</sup>          | 17,298,684 | 17,683,893 | 17,946,830 | 17,290,671 | 17,465,973 |
| Fuel energy intensity GJ/adt <sup>1</sup>  | 23.75      | 22.86      | 24.50      | 22.58      | 22.36      |
| Electricity usage MWh <sup>1</sup>         | 1,367,436  | 1,390,892  | 1,364,452  | 1,312,911  | 1,272,867  |
| Electricity intensity MWh/adt <sup>2</sup> | 1.88       | 1.80       | 1.86       | 1.71       | 1.63       |
|  |            |            |            |            |            |
| Elk Falls                                  |            |            |            |            |            |
| Water use m³/adt                           | 67         | 70         | 68         | 68         | 73         |
| Fuel energy usage GJ                       | 9,452,238  | 12,313,942 | 15,778,439 | 14,609,573 | 14,140,120 |
| Fuel energy intensity GJ/adt               | 16.71      | 17.83      | 18.99      | 17.30      | 17.63      |
| Electricity usage MWh                      | 1,346,489  | 1,519,768  | 1,859,371  | 1,838,519  | 1,609,245  |
| Electricity intensity MWh/adt              | 2.38       | 2.20       | 2.24       | 2.28       | 2.01       |
| Panar Pagualing                            |            |            |            |            |            |
| Paper Recycling                            | 0          | 0          | 0          | 10         | 11         |
| Water use m³/adt                           | 9          | 9          | 9          | 12         | 11         |
| Fuel energy usage GJ <sup>1</sup>          | 104,183    | 138,675    | 137,617    | 172,284    | 151,746    |
| Fuel energy intensity GJ/adt <sup>1</sup>  | 0.80       | 0.97       | 0.97       | 1.18       | 1.02       |
| Electricity usage MWh                      | 57,546     | 67,033     | 67,326     | 71,286     | 73,441     |
| Electricity intensity MWh/adt              | 0.44       | 0.47       | 0.48       | 0.49       | 0.50       |

1 2007 figures updated to reflect calculation adjustments

2 2006 and 2007 figures updated to reflect calculation adjustments

GJ – Gigajoules

MWh – Megawatt-hours

Fuel energy measures include all purchased fuels and self-generated biomass (black liquor); electricity measures include all purchased and self-generated electricity

#### Water and energy use (by mill) (continued)

|   | 2008      | 2007      | 2006      | 2005      | 2004      |
|---|-----------|-----------|-----------|-----------|-----------|
| Port Alberni                              |           |           |           |           |           |
| Water use m³/adt                          | 75        | 86        | 95        | 101       | 99        |
| Fuel energy usage GJ                      | 4,120,219 | 4,576,657 | 5,642,218 | 6,386,313 | 7,041,370 |
| Fuel energy intensity GJ/adt              | 14.81     | 15.96     | 16.77     | 19.09     | 15.93     |
| Electricity usage MWh                     | 674,704   | 706,895   | 835,365   | 883,288   | 979,781   |
| Electricity intensity MWh/adt             | 2.43      | 2.39      | 2.49      | 2.64      | 2.29      |
| Powell River                              |           |           |           |           |           |
| Water use m³/adt                          | 73        | 78        | 87        | 96        | 98        |
| Fuel energy usage GJ                      | 5,928,542 | 6,325,759 | 6,998,712 | 6,702,903 | 6,522,138 |
| Fuel energy intensity GJ/adt              | 12.63     | 13.05     | 14.94     | 15.06     | 15.32     |
| Electricity usage MWh                     | 1,392,001 | 1,382,634 | 1,364,746 | 1,339,364 | 1,215,656 |
| Electricity intensity MWh/adt             | 2.97      | 2.85      | 2.91      | 3.01      | 2.86      |
| Snowflake (all figures are for full year) |           |           |           |           |           |
| Water use m³/adt <sup>1</sup>             | 45        | 34        | 32        | 31        | 27        |
| Fuel energy usage GJ                      | 8,904,691 | 8,316,840 | 8,206,064 | 8,165,373 | 8,775,573 |
| Fuel energy intensity GJ/adt <sup>1</sup> | 22.21     | 18.71     | 17.98     | 17.95     | 20.57     |
| Electricity usage MWh                     | 327,505   | 327,630   | 319,474   | 315,827   | 316,851   |
| Electricity intensity MWh/adt             | 0.94      | 0.99      | 1.04      | 1.09      | 1.11      |

1 Increased intensity of water and fuel energy use reflects in part the supply of utilities to a third-party-owned, carbon-netural energy generating facility that went into operation at the Snowflake site during 2008



#### Solid waste

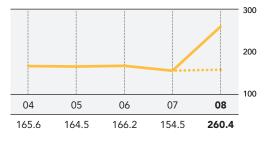
A third-party-owned, carbon-neutral energy generating facility was commissioned at Snowflake in 2008, and is expected to consume 75 per cent of the mill's total sludge production of approximately 250 tonnes per day as a fuel. This will significantly reduce landfilling requirements. Solid waste generation nevertheless increased at Snowflake in 2008, in part due to start-up challenges that prevented the energy generating facility from achieving the expected sludge utilization rate.

Paper Recycling Division continued a long-standing practice of providing its waste sludge for use as a turf-farm growing medium, and also provided some for use as landfill cover. Additional uses were being explored at the end of 2008, including ones at other Catalyst facilities.

Expansion of Catalyst's Powell River landfill was approved by the province in 2008 after a particularly rigorous and lengthy review process. The approval contains numerous conditions in response to concerns expressed by residents. Appeals were filed (although not all appellants were deemed to have standing) and will be heard in 2009.

Catalyst also filed its final application for an expanded landfill at Elk Falls. The consultation process included funding an independent consultant who reviewed the application on behalf of local aboriginal groups. A decision is expected in 2009.

#### Total solid waste to landfill (thousands of m³/year)



••• 2008 performance excluding Snowflake: 156.9

#### Solid waste to landfill

| (cubic metres per air-dried tonne)        | 2008  | 2007  | 2006  | 2005  | 2004  |
|---|-------|-------|-------|-------|-------|
| Crofton                                   | 0.060 | 0.054 | 0.074 | 0.070 | 0.070 |
| Elk Falls                                 | 0.110 | 0.094 | 0.065 | 0.064 | 0.061 |
| Paper Recycling                           | 0.120 | 0.102 | 0.130 | 0.080 | 0.150 |
| Port Alberni                              | 0.070 | 0.067 | 0.076 | 0.086 | 0.061 |
| Powell River                              | 0.034 | 0.028 | 0.034 | 0.040 | 0.032 |
| Snowflake (all figures are for full year) | 0.355 | 0.222 | 0.182 | 0.215 | 0.196 |

#### Total key materials used as tonnes

|                                | % 1  | 2008        | 2007        | 2006        | 2005        | 2004        |
|--------------------------------|------|-------------|-------------|-------------|-------------|-------------|
| Water <sup>2</sup>             |      | 176,518,631 | 175,027,227 | 193,620,156 | 202,775,937 | 197,664,537 |
| Wood chips and pulping logs    | 56.6 | 2,207,406   | 2,304,028   | 2,484,084   | 2,770,754   | 2,981,357   |
| Hog fuel <sup>3</sup>          | 13.9 | 541,421     | 759,933     | 930,959     | 872,611     | 882,287     |
| Old newspapers and magazines   | 13.5 | 526,725     | 170,272     | 173,195     | 165,781     | 176,999     |
| Fossil fuels <sup>4</sup>      |      | 122,632     | 127,928     | 130,081     | 118,210     | 144,611     |
| Precipitated Calcium Carbonate |      | 117,288     | 116,391     | 125,602     | 104,309     | 103,613     |
| Oxygen                         |      | 92,869      | 103,684     | 101,762     | 97,192      | 132,705     |
| Clay                           |      | 77,035      | 81,057      | 73,393      | 66,512      | 55,159      |
| Sodium Hydroxide               |      | 47,815      | 53,778      | 57,643      | 56,309      | 55,306      |
| Sodium Chlorate                |      | 29,227      | 34,950      | 34,374      | 32,843      | 33,704      |
| Hydrogen Peroxide              |      | 29,198      | 28,155      | 25,579      | 28,445      | 27,750      |
| Sulphuric Acid                 |      | 23,822      | 27,888      | 28,553      | 24,708      | 26,386      |
| Sulphur Dioxide                |      | 11,168      | 12,771      | 17,452      | 20,315      | 20,242      |
| Silicate                       |      | 18,973      | 16,301      | 15,971      | 16,296      | 16,588      |
| Starch                         |      | 13,409      | 13,714      | 15,318      | 8,739       | 9,858       |

Figures include usage at Snowflake when relevant, and reflect its acquisition date of April 10, 2008

1 Per cent of total raw materials represented by categories sourced from waste (excluding water consumption in total weight)

2 Water is typically presented as m<sup>3</sup>; in this case, one m<sup>3</sup> of water is approximately one tonne

3 2006 and 2007 figures updated to reflect calculation adjustments

4 Fossil fuels are typically reported as gigajoules of heating value, however weights – while not reflective of the true heat content of the fuels basket for each year – are recommended for inclusion as part of GRI reporting

| Reported total NPRI emissions (not including speciated P. (tonnes) | AHs or Part 5 VOCs)<br><b>2007</b> | 2006  | 2005  | 2004  | 2003  |
|--|------------------------------------|-------|-------|-------|-------|
| Sulphur Dioxide  | 5,034                              | 5,037 | 3,351 | 4,706 | 3,057 |
| Carbon Monoxide  | 3,137                              | 3,249 | 3,825 | 3,627 | 3,919 |
| Nitrogen Oxides  | 2,353                              | 2,587 | 2,585 | 2,647 | 2,593 |
| Volatile Organic Compounds – total                                 | 1,356                              | 1,388 | 1,403 | 1,441 | 1,618 |
| Total Particulate  | 750                                | 1,043 | 1,105 | 1,320 | 892   |
| Hydrochloric Acid  | 953                                | 988   | 971   | 824   | 869   |
| PM10   | 653                                | 685   | 604   | 716   | 675   |
| Methanol   | 649                                | 674   | 651   | 663   | 1,237 |
| Phosphorus   | 591                                | 619   | 700   | 528   | 451   |
| PM2.5  | 529                                | 472   | 420   | 493   | 468   |
| Nitrate Ion  | 190                                | 218   | 405   | 429   | 400   |
| Manganese  | 296                                | 375   | 420   | 417   | 287   |
| Total Reduced Sulphur  | 276                                | _     | _     | _     |       |
| Ammonia  | 376                                | 356   | 318   | 257   | 219   |
| Hydrogen Sulphide  | 82                                 | 123   | 123   | 112   | 118   |
| Zinc   | 63                                 | 74    | 85    | 77    | 71    |
| Acetaldehyde   | 40                                 | 43    | 43    | 37    | 53    |
| Phenol   | 31                                 | 34    | 43    | 27    | 23    |
| Carbonyl Sulphide  | 24                                 | 26    | 26    | 10    | _     |
| Sulfuric Acid  | 12                                 | 12    | 12    | 10    | 16    |
| Chlorine Dioxide   | 81                                 | 13    | 14    | 6     | 6     |
| Chloromethane  | 13                                 | 14    | 14    | _     | 13    |
| Cresol   | 9                                  | 10    | -     | _     | _     |
| (kilograms)  |                                    |       |       |       |       |
| Lead   | 3,078                              | 3,023 | 2,794 | 2,564 | 1,951 |
| Arsenic  | 1,353                              | 1,114 | 813   | 770   | 706   |
| Sum of PAHs (17)   | 3,946                              | 564   | 551   | 498   | 495   |
| Hexavalent Chromium Compounds                                      | 882                                | 502   | 424   | 365   | 459   |
| Cadmium  | 244                                | 275   | 267   | 288   | 340   |
| Mercury  | 5                                  | 3     | 7     | 10    | 19    |
| (grams)  |                                    |       |       |       |       |
| Hexachlorobenzene (HCB)  | 579                                | 750   | 426   | 415   | 636   |
| Dioxins & Furans   | 42                                 | 57    | 60    | 68    | 59    |

Reported total NPRI emissions (not including speciated PAHs or Part 5 VOCs)

Annual releases to air, water and land and disposal or recycling are reported to Environment Canada under the National Pollutant Release Inventory (NPRI) program each May for the preceding calendar year. Emissions are based on actual measures or defensible estimates and are reported if levels surpass specific thresholds. Data for all sectors – industrial, government, commercial and others – is available at www.ec.gc.ca/pdb/npri.

Increases in reported 2007 emissions for both chlorine dioxide and sum of PAHs reflect measurement and calculation changes. Natural process variability resulted in higher concentrations of arsenic and hexavalent chromium compounds in boiler ash at multiple locations, which in combination with use of an updated arsenic emissions factor, accounted for increases in these substances.

Part 5 VOCs will be considered in future reports as part of the company's Clean Production Initiative. Data is currently available on the Environment Canada website noted above.

Data is not included [-] in instances where reporting was not required by the regulator.

#### Appendix 1

#### Non-compliances and Reportable Events

#### **Crofton Division**

Four non-compliances were registered relating to bleach plant chlorine dioxide emissions in 2008. The relevant limit was included in an air permit amended in 2007 and was based on incorrect measurements. During 2008, Crofton reduced chemical applications, re-used residual chemicals, recycled exhaust air, and implemented stack emission treatment. However, chlorine dioxide typically remained above a daily limit. A permit amendment application will be submitted in 2009.

Quarterly stack testing indicated noncompliance with the kiln's particulate limit. An online analyzer failed to detect and provide a basis for prevention of the higher emissions, likely due to the release of larger particulates that resulted from a partial power failure within the precipitator. The precipitator was quickly repaired and compliance restored. Immediate confirmatory stack tests will be taken in the event of such incidents in the future.

A non-compliance relating to leachate from a closed landfill and a failed fish toxicity test also occurred. No source could be identified and the result appeared to be an anomaly. Two events occurred relating to releases of clean treated river water during a power and equipment failure, and were reportable only because they did not occur from normal discharge points. Four additional reportable events consisted of releases of 30 kg of ozone-depleting substances and 120 kg of other halocarbons (see page 23).

#### **Elk Falls Division**

A non-compliance was registered relating to high sulphur content in available coal supplies. Action on the part of the supplier resulted in a return to compliance by March 1, 2008.

One reportable incident resulted from a hose failure and release of liquid SO<sub>2</sub>. The volume is believed to be small, but the incident was reportable due to its 45-minute duration. A change in inspection procedures has been implemented. Three other reportable events consisted of releases of 268 kg of ozone-depleting substances (see page 23).

#### Paper Recycling Division

The TSS permit level was exceeded as a result of operational error that allowed the build-up of excess solids in a secondary clarifier, which then spilled over into the effluent outflow. An immediate response brought TSS levels back into compliance the next day and training was provided to prevent a recurrence.

#### Port Alberni Division

Port Alberni had no permit noncompliances and a single reportable incident consisted of a release of 16 kg of ozone-depleting substances (see page 23).

#### **Powell River Division**

There were eight non-compliances relating to pH levels (acidity/basicity) in effluent. Causes – including a mill outage, an on-site demolition project, improper disposal of cleaning fluid, and a frozen pipe – were identified for six of these incidents. Corrective actions were implemented in 2008 or were under way at year end.

There were four reportable incidents including: a sampling error at an effluent outfall, a release of 20-25 kg of SO<sub>2</sub> (resulting in a partial mill evacuation but with no health impacts recorded), and two leachate releases (11 m<sup>3</sup> as a result of the demolition project, and 700 litres in connection with capacity testing of a landfill leachate line). Two other reportable incidents consisted of releases of 23 kg of ozonedepleting substances (see page 23).

#### Snowflake

Snowflake had no environmental permit non-compliance issues.

#### Non-compliances and reportable events

|      |         |           | Paper     |              |    |           |
|------|---------|-----------|-----------|--------------|----|-----------|
|      |         |           | Recycling |              |    |           |
|      | Crofton | Elk Falls |           | Port Alberni |    | Snowflake |
|      | 40      | -         | 4         |              |    | 0         |
| 2008 | 12      | 5         | 1         | 1            | 14 | 0         |
| 2007 | 5       | 4         | 1         | 2            | 5  | 0         |
|      |         |           |           |              |    |           |

### Appendix 2 Supplemental Information

The following information relates to aspects of corporate performance that are recommended for disclosure in sustainability reports and are not specifically addressed elsewhere in this report.

#### Science-based principles

Catalyst routinely acts to improve aspects of its environmental performance based on possible, as opposed to known, impacts. A current example is the roll-out of the Clean Production Initiative at its Canadian operations (see page 22).

# Infrastructure and services of public benefit

Catalyst maintains and operates watermanagement infrastructure (including a weir and dams) that serve a variety of public interests including provision of drinking water for the community of Crofton.

#### Indirect GHG emissions

Catalyst tracks indirect GHG emissions (World Resources Institute Scope 2) associated with its purchased electricity and steam consumption (see page 16). Catalyst does not have systems in place to measure other sources of indirect GHG emissions.

#### **Biodiversity impacts**

Catalyst manages no forest lands, but operates its facilities within regulatory requirements intended to minimize habitat impacts and engages with fibre suppliers regarding their management and conservation practices. In 2008, antelope habitat was restored at the Snowflake mill site and Catalyst entered into an agreement to sell some 500 acres of estuary lands in the Crofton area to Ducks Unlimited.

#### Minority group membership

Catalyst does not track corporate-wide work force trends relating to age or minority groups, due partly to privacyrelated regulatory provisions.

# Freedom of association, child labour, forced labour

Catalyst operates in British Columbia and Arizona, where freedom of association (including the right to engage in collective bargaining) is enshrined in law. These jurisdictions are deemed to be at low risk for child and forced labour.

#### Corruption

Catalyst's Code of Corporate Ethics and Behaviour contains specific anti-corruption provisions relating to bribery, prohibited benefits, and conflicts of interest.

#### Fines and non-monetary sanctions

Catalyst was ordered to pay a \$75,000 fine during 2008 by WorkSafeBC (a provincial government agency) in connection with an asbestos-exposure incident in 2006. It was not subject to any significant fines or non-monetary sanctions for non-compliance with laws or regulations during 2008.

#### Public policy and government

Catalyst routinely participates in advocacy regarding regulatory matters relevant to its operations (see pages 12 and 22). Major association memberships in 2008 included the Forest Products Association of Canada, the Coast Forest Products Association, the Business Council of British Columbia, and The Climate Group. A Catalyst executive also sat on a provincial climate-change policy advisory panel in British Columbia. Political contributions (beyond minor ones in forms such as event ticket purchases) must be board-approved, and none were made during 2008. Catalyst did not receive any significant financial assistance from government in 2008.

#### Product stewardship and safety

While Catalyst is not formally engaged in any product stewardship initiatives, recent dialogue with directory industry interests may identify opportunities of mutual benefit. Catalyst's products are benign from a safety standpoint and it customers are well-versed in their handling and use.



### Appendix 3 UN Global Compact/GRI Indicators Index

The United Nations Global Compact is the world's largest corporate citizenship and sustainability initiative. Catalyst is among close to 5,000 corporate participants and stakeholders from more than 130 countries that have agreed to make the compact and its 10 principles an integral part of their strategies, culture and day-to-day operations.



Catalyst believes its policies and performance are in accordance with the 10 principles and that the principles were more deeply integrated during 2008. The index below indicates where actions relevant to specific principles are addressed in this report, and cross-references corresponding Global Reporting Initiative (GRI) indicators.

| Global Compact principle  | Corresponding<br>core GRI indicators<br>reported                 | Relevant section of report   | Relevant<br>pages of<br>report |
|---|--|--|--------------------------------|
| <ul> <li>Human rights</li> <li>Businesses should support and respect<br/>the protection of internationally proclaimed<br/>human rights.</li> </ul>                    | LA4<br>LA7<br>HR5-7, SO5   | Compensation and Representation<br>Safety<br>Appendix 2  | 20<br>20<br>33                 |
| 2 Businesses should make sure that they are not complicit in human rights abuses.   | HR5-7, SO5   | Appendix 2   | 33                             |
| <ul><li>Labour standards</li><li>3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.</li></ul> | LA4<br>HR5, SO5  | Compensation and Representation<br>Appendix 2  | 20<br>33                       |
| 4 Businesses should uphold the elimination<br>of all forms of forced and compulsory labour.   | HR7, SO5   | Appendix 2   | 33                             |
| 5 Businesses should uphold the effective abolition of child labour.   | HR6, SO5   | Appendix 2   | 33                             |
| <b>6</b> Businesses should uphold the elimination of discrimination in respect of employment and occupation.  | SO5  | Appendix 2   | 33                             |
| <ul><li>Environment</li><li>7 Businesses should support a precautionary approach to environmental challenges.</li></ul>   | EC2, EN18<br>EN26<br>SO5   | Carbon Management, Carbon and<br>Climate Change<br>Sustainable Product Pedigrees<br>Appendix 2               | 16-17<br>14-18<br>33           |
| 8 Businesses should undertake initiatives to promote greater environmental responsibility.  | EN1-3, EN6-7, EN13,<br>EN16, EN18-20, EN23,<br>EN26, EN28<br>SO5 | Sustainable Product Pedigrees, Data and<br>Additional Reporting (Environmental),<br>Appendix 1<br>Appendix 2 | 14-18, 22-31,<br>32<br>33      |
| 9 Businesses should encourage<br>the development and diffusion of<br>environmentally friendly technologies.   | EN2, EN6-7, EN18, EN26<br>SO5                                    | Sustainable Product Pedigrees, Data and<br>Additional Reporting (Environmental)<br>Appendix 2                | 14-18, 22-31<br>33             |
| <ul> <li>Anti-corruption</li> <li>10 Businesses should work against all forms of corruption, including extortion and bribery.</li> </ul>                              | SO5-6  | Appendix 2   | 33                             |

A complete index of Catalyst's reporting on GRI indicators – within this report, its annual financial report, and on its website – is available at www.catalystpaper.com ("Social Responsibility" – "Reports").

#### Glossary

A Level TRS British Columbia's 'A' level ambient odour objective is two parts per billion average or less over a 24-hour day. Percentage compliance with this objective is a measure of the percentage of days in the year in which the daily average was at or below two parts per billion.

Ambient PM10 Measure of ambient levels of fine particulate of less than or equal to 10 microns. British Columbia's A Level PM10 objective is 50 micrograms per cubic metre.

#### Adsorbable Organic Halide (AOX)

A measure of the amount of chlorine bound to an organic substance; occurs in kraft bleaching process.

**Basis weight** Weight of a standard amount of paper cut to a standard size; measured in grams per square metre or pounds.

**Biomass fuel** Renewable energy source derived from bark, wood shavings, sawdust and black liquor. Biomass is carbon-neutral – burning it releases the same amount of carbon dioxide as was originally sequestered during the growth of the vegetation.

#### **Biochemical Oxygen Demand (BOD)**

A measure of the amount of oxygen used during biodegradation of effluents over a five-day period.

**Carbon Disclosure Project** An international coalition of investors, with a combined asset base of \$57 trillion, that issues annual carbon-related disclosure requests to corporations, and issues national and regional reports.

**Carbon offset** An emissions reduction credit relating to another organization's project that results in less greenhouse gases in the atmosphere than would otherwise occur.

**Certification** A voluntary process providing objective evidence that forests harvested to manufacture wood and paper products are managed responsibly; independent, third-party experts verify a company's performance against objectives and standards.

**Chain-of-custody** The process of tracking materials used within a manufacturing facility, so that the source of raw materials used to make specific end products can be identified. Commonly applied in the context of use of certified fibre supplies.

**Clarifier** A tank in which effluents are held to allow solids to settle out. Forms part of an effluent treatment system.

 $CO_2e$  Effective greenhouse gas emissions expressed as equivalent tonnes of carbon dioxide. Some greenhouse gases have a stronger warming effect than others; the  $CO_2e$  measure provides an appropriate comparison of the warming effects of every greenhouse gas.

**Co-generation** The use of an energygenerating source to simultaneously generate both heat for industrial applications and electricity.

**De-inked pulp** Pulp produced by recycling paper; ink is removed by mechanical and chemical means to produce clean fibres.

Dioxins and furans Specific chlorinecontaining compounds that have been detected in trace amounts in pulp and paper facility emissions. 2378TCDD and 2378TCDF denote specific dioxin and furan substances. A non-detection result is noted as n/d.

Ecosystem-based Management (EBM)

An approach to forest management, based on defined principles and goals, that seeks to maintain healthy and fully functioning ecosystems as well as vibrant human communities, in part by determining the relevant requirements before harvesting decisions are made.

Fibre Any of various wood-based raw materials used in the production of pulp and paper including wood chips and other sawmilling residuals or waste products, pulp logs (logs of insufficient quality for use as lumber) and paper recovered through recycling programs.

**First Nation** A term used to designate aboriginal groups in Canada. First Nations are one of the three aboriginal peoples of Canada, the other two being the Inuit and Métis.

Fossil fuel Hydrocarbon-containing natural resources such as coal, petroleum and natural gas.

Greenhouse Gases (GHG) Gases that prevent heat from radiating out into space, causing an increase in global temperatures. Carbon dioxide is a greenhouse gas produced mostly from combustion of fossil fuels.

#### Indirect Greenhouse Gases (GHG)

Greenhouse gas emissions relating to an industrial process but not directly generated by it. Measurement of such emissions, as per the World Resources Institute's Scope 2 definition, is commonly limited to those associated with purchased energy.

**Intensity** A measure of an output or other aspect of performance relative to some other variable. Carbon produced per tonne of production, in contrast to an absolute measure of total carbon produced, is an intensity measure.

#### ISO 14001, 9001, 14064

International standards outlining elements of management systems pertaining to environmental practices, product quality, and greenhouse-gas accounting, respectively. Demonstrable adherence to these standards results in ISO registration.

Kraft pulping A chemical process by which wood chips are broken down and converted into pulp for use in the manufacture of products such as containerboard (used in packaging materials) and paper.

**Leachate** Water that has been in contact with waste materials.

**Manufactured carbon neutral** Refers to products manufactured with no net increase of carbon to the atmosphere – as measured by direct GHG emissions – as a result of low-carbon production processes and the purchase of carbon offsets.

**Ozone-depleting substance** Chemicals that react with ozone molecules in the atmosphere to destroy them.

Particulate matter Small particles originating from stack emissions or other sources such as chip piles.

**Power boiler** Burns renewable biomass from sawmills and/or fossil fuels to generate electricity and steam for mill operations.

Power boiler dioxins Low levels of chlorinated compounds absorbed into combusted wood ash that originate from sea salt contained in the waste bark fuel. Power boiler dioxins are expressed as dioxin equivalent units (TEQ).

**Recovered paper** Previously manufactured paper recovered through municipal recycling programs or other means and used as the raw material in recycling mills.

**Reportable events** Events that are required to be reported to regulatory authorities. They most commonly consist of unintentional releases of materials into the environment that are reportable due to considerations relating to the type or volume of materials released, or the nature of the receiving environment.  $SO_2$  A gas made up of oxygen and sulphur that forms an acid when exposed to water.  $SO_2$  can be an ingredient of acid rain formation.

**Solid waste** Any wastes generated by mills that require landfilling. These include boiler wood ash, lime wastes, waste wood, and minor construction and demolition debris.

Supplementary fuels Fuels such as natural gas or oil that are added to the waste wood burned in power boilers to improve combustion.

Thermo-mechanical A process by which heat and mechanical refining techniques are used to break down wood chips and convert them into pulp.

**Toxicity** Measure of the degree to which something is toxic – i.e. capable of causing injury or death.

**Trout toxicity** Test that exposes juvenile rainbow trout to liquid substances for 96 hours. A substance is considered non-toxic if less than 50 per cent of the exposed fish die.

#### Total Reduced Sulphur (TRS) Gases

Gases with the characteristic smell of rotten eggs or cabbage that are emitted from kraft pulp mill operations and effluent treatment systems.

**Total Suspended Solids (TSS)** Filterable solids remaining in treated mill water.



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# Paper Facts per report (117 g)

| Inputs               |       |
|----------------------|-------|
| Raw Fibre (g)        | 134   |
| % certified sources  | 100   |
| Filler (g)           | 12    |
| Water (L)            | 8.3   |
| Work (person-secs)   | 1.0   |
| Energy (cal)         | 643   |
| % renewable          | 90    |
| Emissions            |       |
| Greenhouse gases (g) | 13.5* |
| Air Particulate (mg) | 22.1  |
| Effluent BOD (mg)    | 75    |
| Solid waste (cm³)    | 5.8   |

\* Catalyst Cooled<sup>™</sup> – offset to zero

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