The steps we take

CATALYST PAPER SUSTAINABILITY REPORT 2015

Catalyst at-a-glance

Catalyst Paper is a leading North American manufacturer of diverse printing papers such as coated freesheet, coated and uncoated groundwood, newsprint and directory, as well as market pulp. These products are marketed around the world for diverse end-uses that facilitate communication, commerce, education and other vital activities.

In 2015, we accelerated efforts to develop and commercialize new products extending beyond printing and writing papers. Drawing on extensive expertise in energy generation and environmental management, we also produce and sell green energy.

We operate five mills, three in Canada and two in the United States, and a network of strategically positioned distribution facilities. This enables us to effectively serve markets throughout the continent and to seamlessly link to global supply chains. In 2015, we had 2,625 employees, a total production capacity of 2.3 million tonnes, and total sales of $2 billion.

We have a recognized track record of collaborating to ensure wood fibre and other inputs are sourced sustainably; of minimizing the impacts of our manufacturing operations, in forms such as greenhouse gases; of engaging with employees and communities transparently and respectfully; and of providing quality products with verified environmental attributes which customers can use with confidence.

Headquartered in Richmond, British Columbia, Catalyst is a publicly-traded company (TSX:CYT).

BEST 50
CORPORATE CITIZENS

For the ninth consecutive year, Catalyst was named one of **Canada's 50 Best Corporate Citizens** by *Corporate Knights* magazine. Based on an assessment of both key performance outcomes and transparency, this is a widely acknowledged hallmark of a strong and successful commitment to the pursuit of sustainability.

ABOUT THIS REPORT

This is Catalyst Paper's 13th Sustainability Report. Of particular note during 2015 was our acquisition in January of mills located in Biron, Wisconsin and Rumford, Maine. Full-year results from these mills are incorporated into this report (unless otherwise noted), and this accounts for significant change relative to 2014 on many performance metrics (particularly absolute measures).

The report is intended to cover those topics that reflect Catalyst's most significant economic, environmental and social impacts, and that are of greatest interest to our stakeholders. It is informed by our ongoing interactions with those stakeholders.

It therefore focuses primarily on performance relative to these "material aspects": procurement practices, materials, energy, water, emissions, effluents and waste, compliance, transport, employment, occupational health and safety, and local communities. Catalyst self-declares this report to be in accordance with the core disclosure requirements of the Global Reporting Initiative's G4 Guidelines. (See detailed index available at: *www.catalystpaper.com/investors/sustainability-reports*)

The report covers the period January 1, to December 31, 2015, and encompasses all of Catalyst's operations and worldwide sales reported in Canadian currency.

Feedback on this report is welcome and can be provided to: **sustainability@catalystpaper.com**.

CONTENTS

Like all good stories, this is a story of people. Because it's people who make choices about every aspect of our business, and it's people to whom these choices matter. So when it comes to sustainability, it's really important to Catalyst's people that we make social, economic and environmental choices that show our commitment to making paper for a long time to come. It's just as important to us that you know of the choices we've made, and continue to make. We're transparent, and we're proud of our thoughtful answers to hard questions.

We're taking steps, and we hope you'll walk with us.

Energy & Carbon

Renewable Energy (%)	74%
Electrical Energy Used (GWhr)	3,191
Biomass Fuels Used (million GJ)	39.2
Fossil Fuels Used (million GJ)	14.5
Greenhouse Gases – Scope 1 – Direct Operations (thousand tonnes CO_2e)	1,201
Greenhouse Gases – Scope 2 – Purchased Power (thousand tonnes CO_2e)	243
Greenhouse Gases – Scope 3 – Supply Chain (thousand tonnes CO_2e)	928

Customers & Products

Total Paper Manufactured (t)	1,737,383
Total Pulp Manufactured (for external sale) (t)	474,546
Total Electricity Sold (MWhr)	114,298
Total Countries Shipped To	43
Total Customers Sold To	467

Includes Crofton & Rumford pulp.
Minor discrepancies may exist between this data and 2015 Annual Report data based on reconciliation of finished saleable production.

Fibre
(1,000 TONNES)

Wood Chips Used	1,629
Pulp Logs Used	1,063
Purchased Pulp Used (virgin)	97
Purchased Pulp Used (recycled)	7
% Third Party Audited	49%

People & Places

Total Employees	2,625
# of Workplace Incidents Requiring Medical Attention	67
Taxes Paid to Governments	$35 million
Total Value Distributed	$2 billion

Water

Process Water Used (million m^3)	150
Cooling Water Used (million m^3)	121

Outputs

Solid Waste to Landfill (t)	142,232
Solid Waste Beneficially Re-used (%)	44%
Total Suspended Solids Released (t)	4,753
Biochemical Oxygen Demand (t)	1,982
Total Particulates Released (t)	837
Total Reduced Sulphur Released (t)	107
Total Sulphur Oxides Released (t)	8,404
Total NO_x Released (t)	5,598

Includes emissions attributable to both paper manufacturing and production of power for sale.

Facts & Figures

	2013	2014	2015
Social			
Medical Incident Frequency (PER 200,000 HOURS WORKED) [1]	3.9	2.5	2.5
Lost-Time Incident Frequency (PER 200,000 HOURS WORKED) [2]	1.5	1.1	1.2
Employee population (ACTIVE EMPLOYEES AT YEAR END, EXCLUDING VACANCIES)	1,611	1,598	2,625
Payroll (INCLUSIVE OF BENEFITS AND EXCLUSIVE OF RESTRUCTURING COSTS [SEVERANCE]) ($ MILLIONS)	183	186	337
Charitable donations ($ THOUSANDS)	136	110	54
Economic (millions of dollars) [3]			
Total taxes paid [4]	27.0	30.0	35.0
Total sales	1,051.4	1,109.3	1,991.1
Net earnings (loss) attributable to company	(127.6)	(72.3)	(49.4)
Market capitalization [5]	20.0	44.2	34.9
Adjusted EBITDA (before specific items)	47.3	48.1	86.7
Adjusted EBITDA (before specific items) as % of sales	4.5	4.3	4.4
Inputs (usage)			
Water (M^3 – TREATED EFFLUENT DISCHARGES/PROCESS WATER)	106,877,705	110,246,970	150,284,263
Fuel energy (GIGAJOULES (GJ) – INCLUDES FOSSIL FUELS AND RENEWABLES)	30,071,303	30,440,668	53,651,272
Electrical energy (MEGAWATT-HOURS (MWH) – INCLUDES PURCHASED AND SELF-GENERATED ENERGY)	3,527,604	3,495,885	4,649,959
Wood fibre (TONNES) [6]	1,685,294	1,712,216	2,796,406
Outputs (tonnes, unless otherwise noted) [7]			
Greenhouse gas emissions (CO_2e)	215,122	225,511	1,200,759
Total reduced sulphur (TRS) emissions	77	62	107
Particulate emissions [8]	464	460	837
Biochemical oxygen demand (BOD)	1,174	1,261	1,982
Total Suspended Solids (TSS)	2,320	2,787	4,753
Solid waste to landfill (tonnes)	71,246	76,063	142,232

[1] Medical Incident: Injury requiring medical treatment other than first aid.

[2] Lost-Time Incident: Injury resulting in a full work day lost, past initial treatment.

[3] Losses from discontinued operations, net of tax, are shown separately from continuing operations in the consolidated statements of earnings (loss) in our annual consolidated financial statements for the years ended December 31, 2014 and 2013.

[4] Includes property taxes, U.S. operations' sales taxes, carbon taxes and PST incurred.

[5] Based on closing share value on December 31.

[6] Previous years restated to include purchased pulps, in addition to chips and logs.

[7] Includes emissions attributable to both paper manufacturing and production of power for sale.

[8] Based on actual test results; NPRI data may differ due to use of emission factors and inclusion of other sources. See page 59.

NOTE: The acquisition of the Biron and Rumford mills, at the beginning of 2015, resulted in significant increases across numerous metrics for the year.

The steps we took, familiar and new

LETTER FROM THE PRESIDENT & CEO

In 2015, Catalyst retained our leadership role in sustainable business practices and our commitment to build respectful and constructive relationships with employees and stakeholders.

We did so while becoming a dramatically different company as we doubled in size after acquiring two mills in Biron, Wisconsin and Rumford, Maine in January. This acquisition expanded our total production capacity to 1.8 million tonnes of paper and 491,000 tonnes of market pulp, added 1,200 new employees to Catalyst's workforce, and established a new U.S.-based sales and distribution infrastructure.

We became the only paper manufacturer with production facilities in the western, mid-western and eastern regions. The acquisition also greatly expanded our presence in coated paper markets and we are now North America's largest coated groundwood paper producer, a major producer of coated freesheet papers, and we have a growing presence in coated one-sided specialty products. Our improved market position is enabling us to pursue both evolutionary and ultimately revolutionary business improvement strategies, driven by a relentless pursuit to achieve operational excellence – first quartile performance in safety, productivity and cost reduction.

While our track record of sustainable business practices continues, the acquisition of the two U.S. mills has substantially altered our environmental profile. We are, for example, now drawing on different forest resource and fuel sources. But our U.S. mills clearly share our long-standing corporate commitment to continually lighten our footprints across our key environmental metrics.

We've found great opportunities to leverage differing expertise and strengths at our Canadian and U.S. operations. The rich experience in coated paper production at the U.S. mills has been invaluable to our ongoing efforts to improve our west coast coated capacities. Our Canadian energy-management know-how has also helped lay the groundwork for large-scale improvements planned at Biron. The completion of the G13 project at Powell River also increased our green energy generation capacity at one of two operations where we sell power. This fits a longer-term vision to become a producer of pulp, paper, power and new synergistic products drawn from our existing raw materials and manufacturing by-products.

A major sustainability milestone was the release of the Great Bear Rainforest Land Use Objectives Order (LUO) that establishes for the first time a jointly-developed ecosystem-based management model for the Great Bear Rainforest (64,000 square kilometres of B.C. coastline) that will provide protection for fish and wildlife habitat, old growth forests, and First Nations' cultural values, while also providing a sustainable harvest level that will support an economically viable forest sector. Catalyst has worked since 1998 with other companies, First Nations, local communities, NGOs and the B.C. government to bring this landmark agreement to fruition.

We were proud to be acknowledged for the ninth consecutive year as one of Canada's 50 Best Corporate Citizens by Corporate Knights. This designation recognizes our sustainability track record and acknowledges the investments we make to put our values and commitment into practice. In 2015, I appointed Graham Kissack as Vice President of Corporate Social Responsibility to bring executive focus and leadership to our continuing efforts to strengthen our sustainability practices and performance.

Real challenges remain. Safety performance, for example, largely held steady in 2015, although any progress we made was overshadowed by the tragic death of an employee at our Crofton mill in early 2016. This sad incident, which touched all of us deeply, reminds us of what's at stake when we talk about safety and renews our determination to improve our safety performance recognizing that our path forward is a continuous journey – not a destination.

Climate change impacts were evident at our B.C. operations, and while we successfully managed limited summer water flows at both Crofton and Port Alberni, we remain focused on the need to increase water storage capacity at the Crofton operation.

Overall, our sustainability related partnerships and performance remained very strong, and we built and extended relationships concurrent with our now large manufacturing presence in the U.S.

In 2015, we moved the company to a more secure commercial footing with a clearer competitive advantage. We continued our world-leading environmental performance and stakeholder relations, and helped to ensure our customers have the utmost confidence in the performance, and environmental and social pedigree of our products.

My thanks to our employees and partners who helped us progress in 2015. In 2016, we will continue to build on long-standing strengths while pursuing what I expect will be increasingly diverse, exciting and innovative new opportunities. Sustaining our business, and delivering upon the strong environmental and social values we've become known for, has never been more important.

Joe Nemeth

President & Chief Executive Officer

AT CATALYST, SUSTAINABILITY IS NOT JUST A BOX TO BE CHECKED – IT'S AN ESSENTIAL INGREDIENT AT EVERY POINT IN OUR BUSINESS

Every step of the way

OUR STORIES

Keeping watch

WHY SAFETY EQUALS SUCCESS

"Incidents are like weeds. You can take quick corrective action – weed whacking – but it is far better to take the time to pull them up by the roots and get to the real cause. Do that and you will have good safety results."

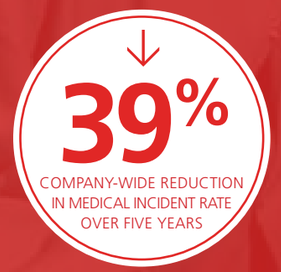
That's the working philosophy of Scot Grassette, Safety Advocate at Rumford, and his (and the entire safety team's) approach is showing results. Despite distractions such as an acquisition, a lengthy machine shutdown and restructuring, Rumford's safety record has improved in notable ways.

What's the secret to good safety?

Most safety leaders say it comes down to good people keeping a close watch on things.

Says Scot: "Look in areas that excel in safety, and I guarantee you will find a crew that watches out for each other. Our employees are willing to report near misses and suggest different ways of doing things. No one wants to see anyone get hurt. We all want to go home in the same condition we came to work in."

AT OUR MILL IN RUMFORD, MAINE, MARCIA POWERS (PULP DRYER SUPERINTENDENT) REVIEWS THE CONTROL PANEL DISPLAY (LEFT), WHILE JAMES ALLEN (PULP DRYER MAINTENANCE MECHANIC) ADJUSTS LUBRICATION TO THE DRYER CAN BEARINGS (FOREGROUND).



MORE ABOUT CATALYST'S PEOPLE:

Trees of life

OUR WORK WITH ENVIRONMENTAL NGOs HELPS PROTECT IMPORTANT FORESTS AND GUIDE OUR DECISIONS

The Great Bear Rainforest is the largest intact tract of coastal temperate rainforest in the world, so Catalyst's 18-year participation in a landmark agreement involving the province of B.C., First Nations, environmentalists and forest companies, is more than important; it's a critical approach for the company in any sourcing we do from the world's ancient and endangered forests.

Amanda Carr, with the environmental organization Canopy (best known for the "greening" of the Harry Potter books), points to Catalyst's role in the Great Bear Rainforest success, as well as their efforts this year to forward solutions in Canada's Boreal Forest, as not only a model of conservation planning with First Nations governance structures, but an inspiring example of business showing true leadership. "The Great Bear Rainforest model offers hope for the world's forests," she says. "Catalyst is taking that model, and with environmental partners, applying it to their Boreal Forest sourcing, and very soon – we hope – to Vancouver Island's remaining rainforests."

These proactive solutions are important to Catalyst, which shares an industry-leading approach with Canopy, Greenpeace and others when it comes to pulp sourcing for paper production. The company's acquisition in 2015 of a mill in Biron, Wisconsin, brought a new touchpoint with the Boreal Forest, and the need to plan well. "The people at Catalyst are committed and authentic about requiring their suppliers to create space for solutions and to decide what to leave, before deciding what to take," says Amanda. "It is an approach to fibre sourcing that sets us all on a path to protection of the world's ancient and endangered forests."

AMANDA CARR, CAMPAIGN DIRECTOR AT CANOPY, IS AN ENVIRONMENTAL SCIENTIST WHO WAS ACTIVELY INVOLVED IN THE NEGOTIATION FOR THE GREAT BEAR RAINFOREST AGREEMENT AND IS PASSIONATE ABOUT REALIZING CONSERVATION RESULTS BY WORKING IN COLLABORATION WITH COMPANIES.

2%

BOREAL FIBRE IN CATALYST'S FIBRE MIX

MORE ABOUT FIBRE SOURCING AT CATALYST:

Fibre Sources . . . . . Page 30
Sustainability Attributes . . . . . Page 30
Sustainable Fibre from the Boreal . . . . . Page 33

Paper produced by people

Paper machine efficiency is defined as the percentage of time when the machine is manufacturing saleable product. That's an important statistic for a paper company. At Powell River, faced with low efficiency, VP & GM Fred Chinn and his team set out to change things. While it may seem like a machine-based challenge, it was in fact human collaboration and communication that improved efficiency.

"The ideas all came from the operations and maintenance teams," says Michel Monnier, Manager, Paper Operations, noting the installation of a high-speed camera to detect the specific causes of breaks and sometimes enable them to be corrected without what would otherwise be machine downtime. The manual changing of a reel – that has to be done about every 45 minutes – was found to be another efficiency barrier, with automation offering a huge improvement.

Overall, improved paper machine efficiency at Powell River resulted in $900,000 of savings in the first quarter of 2015, with a 5.6 per cent increase in efficiency on one machine, and 1.6 per cent on another. Impressive numbers on their own; even more so given the extensive re-training and new processes occurring across the mill at the time.

AT THE POWELL RIVER MILL, MANAGER MICHEL MONNIER IS PROUD OF THE TEAM'S WORK TO INCREASE THE EFFICIENCY OF PAPER MACHINE #10.

5.6%

EFFICIENCY INCREASE IN POWELL RIVER PAPER MACHINE #10

MORE ABOUT EFFICIENCY AT CATALYST:

Energy Use . . . . . Page 34
More Green Energy & Conservation Opportunities . . . . . Page 35
Transporting Products the SmartWay®. . . . . Page 35

Managing the ebb and flow

Tim Kulchyski caught his first Chinook salmon on the Cowichan River when he was eight. His son, Tomo, is only one now, but Tim hopes he grows up learning the traditional skills of his Cowichan Tribes' ancestors, too. As a biologist consulting to Catalyst, Tim knew that 2015 brought a hot, dry summer like no other; one that left everyone from firefighters to fishermen worried.

The mill at Crofton, licensed to operate a weir to control water flow from Cowichan Lake into the Cowichan River, was faced with a unique challenge: how to manage the water that supplies local residents, the mill, and – importantly – migrating salmon.

In the face of the worst declared drought in British Columbia's history, Catalyst's mills in both Crofton and Port Alberni worked with local partners, including Tim and Cowichan Tribes' leadership, to find water management solutions. In addition, the Crofton mill reduced its water use by six per cent in July, the peak of the drought. Both locations are looking at longer-term water management plans to mitigate the impact of climate change.

TIM KULCHYSKI OF THE COWICHAN TRIBES LIVES, WORKS AND PLAYS BY THE COWICHAN RIVER ON VANCOUVER ISLAND.

6%

CROFTON MILL WATER REDUCTION DURING PEAK SUMMER USE

MORE ABOUT WATER MANAGEMENT AT CATALYST:

From fibre to field

For 120 years, a mill in the village of Biron, Wisconsin has been making paper. These days, two paper machines at the mill produce coated groundwood papers. The community has benefited over the years, and now, too, are the hundreds of acres of surrounding dairy, corn, hay and soy bean farms.

Working with a neighbouring mill, Catalyst's Biron location pioneered a process to treat the residuals after processing for use as fertilizer in surrounding farm fields. Made mostly of wood fibres, the waste slowly releases nitrogen and other nutrients over several growing seasons, and also improves soil structure. From a business perspective, this approach costs Catalyst 25-30 per cent of what landfilling would cost, and the product is available free to farmers under a Wisconsin state permit.

44%

SOLID WASTE BENEFICIALLY REUSED ACROSS CATALYST

MORE ABOUT OUTPUTS AT CATALYST:

Order up!

He may look brown and orange on the outside, but The Great Root Bear of A&W Canada is green at heart. So when the company wanted to consider the environmental properties of the paper being used for their retail coupons and coupon booklets, a Catalyst paper emerged as the clear choice.

"We want to better serve the environment, because that better serves our guests and our company," said Kim Goodman, Manager, Brand Print Services. "This initiative supports A&W's robust environmental strategy, and we were impressed when we saw the numbers. Catalyst offered a better environmental position – the paper had many qualities that were important to A&W such as FSC Certification, waste diversion, a reduced environmental footprint, less water and energy usage – and it was also simply a better product – providing both green and printability advantages."

In reality, the shared values of A&W and Catalyst Paper go together like root beer and a frosted mug. A&W continues to be an industry leader not only with reusable and compostable packaging, but also with beef raised without the use of hormones or steroids, eggs from hens fed a vegetarian diet without animal byproducts, and chicken and pork raised without the use of antibiotics. A&W – like Catalyst – values sustainability in ways that better serves customers and the planet.

A&W CANADA'S KIM GOODMAN (LEFT) AND AMANDA WANG CHOSE THE SAME PAPER THIS REPORT IS PRINTED ON – ASCENT – BECAUSE OF ITS ENVIRONMENTAL QUALITIES.

91%

RENEWABLE ENERGY USED TO MAKE PAPER PURCHASED BY A&W

MORE ABOUT CATALYST'S CUSTOMERS AND PRODUCTS:

Product Transportation Efficiency by Mode . . . . . Page 44
Helping Missionaries Travel Light. . . . . Page 45

Stakeholders

Catalyst's business is complex, giving rise to impacts and benefits that engage the interests of a wide range of stakeholders. Our key stakeholder groups are identified below, and objectives and outcomes relating to interactions with them in 2015 are noted.

Employees Retirees Communities

We promote an "ownership" mindset among employees and reward and recognize their contributions. We maintain open dialogue with operating communities and use our corporate resources to help meet community needs when feasible.

AN OWNERSHIP MINDSET – PAGE 22
COMMUNITY AND SOCIAL ENGAGEMENT – PAGE 26

Investors

We are focused on delivering positive, sustainable earnings levels.

Catalyst's 2015 financial performance is detailed in its annual report: *www.catalystpaper.com/investors*

Non-Governmental Organizations

We have long-standing relationships, most particularly with environmental organizations, to which we often turn for input on wood fibre and other supply-chain decisions.

SUSTAINABLE FIBRE FROM THE BOREAL – PAGE 33

Suppliers & Business Partners

We look for suppliers who are as conscious of their impacts as we are of ours, and who will work with us to innovate and to get more value from our assets and processes.

CARBON CONTENT IN PROCUREMENT – PAGE 35
TRANSPORTING PRODUCTS THE SMARTWAY® – PAGE 35
LOAD DISPLACEMENT – PAGE 37

Indigenous Groups

We are committed to working collaboratively with Indigenous groups who have a mutual interest in safeguarding local environments and developing economic opportunities to mutual benefit.

COWICHAN RIVER PARTNERSHIP – PAGE 12
GREAT BEAR RAINFOREST – PAGE 32
BOREAL FOREST SOLUTION – PAGE 33

Governments

We work closely with governments to ensure our compliance with existing and emerging regulation, and to promote a competitive business environment. We seek their support on market access matters.

"MACT" REQUIREMENTS – PAGE 42
COUNTERVAILING DUTIES – PAGE 45
VARIOUS PERMIT-RELATED MATTERS – ENERGY, WATER AND EMISSIONS SECTIONS, BEGINNING PAGE 60

Customers

We strive to anticipate and exceed customer expectations, to offer new products and to expand into market segments with growth potential.

NEW PRODUCT DEVELOPMENT – PAGE 44

Governance

Catalyst has a President and a Board of Directors, whose chair and all other members (with the single exception of the CEO) are independent. There were six male directors and one female director in 2015. The Board approves our strategic plan and budgets, identifies and monitors principal risks, and oversees the appointment and performance of the President & CEO.

Its three permanent committees are Audit; Governance, Human Resources and Compensation; and Environmental, Health and Safety (EHS). The EHS Committee receives detailed quarterly updates on mill-specific performance, and is also responsible for approval of the company's sustainability reports.

Our Code of Corporate Ethics and Behaviour and other governance-related documents are available at: *www.catalystpaper.com/about/governance.*

Procedures enable employees to bring potential code violations and other concerns directly and anonymously to the Board's attention (no such reports were made in 2015), as well as enabling other parties to communicate directly with the Board.

A "Whistleblower Hotline" is posted on the company's intranet home page.

Products

Catalyst offers a broad and diverse range of paper and pulp grades, ranging from commodity to specialized grades. Our Oxford and Orion brands are produced using a "kraft" rather than mechanical pulping process, and are well suited to uses where a longer paper lifespan is needed.

CATEGORY	BRANDS	REPRESENTATIVE END USES
Coated Specialty Papers	Oxford	Name tags, food labels, specialty packaging, gift wrap, envelopes
Coated Freesheet Papers	Orion	Publication covers, high-end magazines and catalogues, direct mail
Coated Mechanical Papers	Vision Escanaba Dependoweb Capri Consoweb	Magazines, catalogues, direct mail, inserts, brochures
Uncoated Papers – soft-calendered finished and machine finished (hi and super brite)	Electracal Electraprime Electrabrite Electrabrite Book Electrastar	Special advertising sections, direct mail, general commercial printing products, inserts, flyers
Directory and Newsprint	Catalyst Marathon	Directories, catalogues, newspapers, inserts, flyers
Pulp – softwood and hardwood	Crofton Kraft Swift River Kraft	Used by other manufacturers to make papers, tissues and specialty products

Most paper grades are also available with our premium "Sage" designation – see page 44. Catalyst produces some legacy brand names that are transitioning to the above brand names (e.g. Ascent to Orion).

An Open Book on Product Attributes

Catalyst strives to be transparent in all stakeholder relations, and particularly in connection with product attributes. Participation in third-party disclosure initiatives provides current and prospective customers with precise insight on how our products and processes perform on key environmental metrics.

ENVIRONMENTAL PAPER ASSESSMENT TOOL

Developed by GreenBlue, EPAT assesses specific paper products against a set of seven "desired outcomes of environmentally preferred paper."

ENVIRONMENTAL PAPER COMPANY INDEX

In 2015, Catalyst joined this initiative of the World Wildlife Fund – with which it has a long working relationship. Similar to EPAT, the EPCI places particular emphasis on recycled and FSC-certified paper, both of which are produced at Catalyst's U.S. mills.

CARBON DISCLOSURE PROJECT AND RELATED DISCLOSURES

Catalyst continues to fully disclose its carbon-related performance to the investor-driven Carbon Disclosure Project, and also responds to parallel disclosure exercises established by the CDP in relation to forests and water.

Partnerships

In 2015, Catalyst worked with a number of organizations. See full description on page 30.

Certification

FSC www.fsc.org FSC® C112215 The mark of responsible forestry

PEFC PEFC/26-31-25 Promoting Sustainable Forest Management pefccanada.org

SUSTAINABLE FORESTRY INITIATIVE

Recognition

BEST 50 CORPORATE CITIZENS

Collaboration

CERES

GREENBLUE

THE RECYCLING PARTNERSHIP

WWF

Golden Sands Resource Conservation & Development Council, Inc.

SmartWay Transport Partner Getting There With Cleaner Air

Coast Forest PRODUCTS ASSOCIATION

Council for CLEAN CAPITALISM

Corporate Knights The Company for Clean Capitalism

Coast Forest Conservation Initiative

Workforce Profile

Dustin Vande Zande (Shipping Utility), Biron Division, operating a grab truck to load a rail car.

PHOTO BY HEIDI HAMMITT (TIMEKEEPER), BIRON DIVISION

2015 Issues & Initiatives

A BIGGER COMPANY

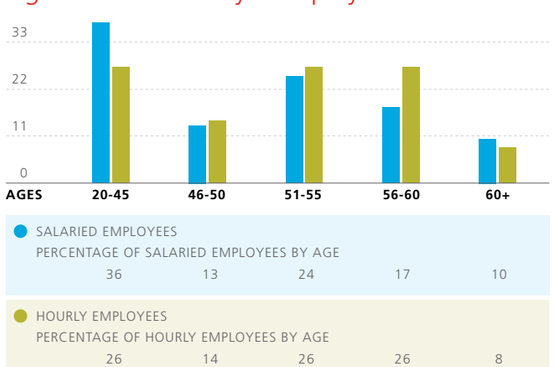
With our acquisition of the two U.S. mills, Catalyst welcomed an additional 1,200 employees (for a total of 2,625 at all locations). We provided continuity of compensation, recognition of past service, vacations, group benefits and pension entitlements for all of these new employees as they joined Catalyst.

We also acted quickly to retain key sales and marketing talent and to expand our robust U.S.- based sales team.

While Catalyst's active workforce is substantial in size, in Canada an even larger number of former employees draw pensions from plans that we either manage or contribute to. Salaried employees are covered by a defined contribution plan. (A defined benefit plan for Canadian employees was closed to new members in 1994, and benefit accrual ceased entirely in 2009.) Unionized employees participate in multi-employer plans to which Catalyst contributes a set per cent of their earnings.

Salaried employees in the U.S. are part of a 401(k) Retirement Plan, to which both they and Catalyst make tax-deferred contributions. All unionized employees in the U.S. also participate in a 401(k) Plan, while some also participate in a defined benefit plan that is now closed to new members.

Age Curve Of Catalyst Employees



WITH AN OWNERSHIP MINDSET

Catalyst strives to have employees think and act like owners, in part by ensuring they share in the benefits of improved performance. This is promoted primarily through our Opportunities for Improvement (OFI) Program designed to assess, implement and reward employee-identified changes that result in cost savings, improved efficiencies or new revenue generation.

In 2015, the OFI program was fully rolled out across our operations and generated net benefits of approximately $49.6 million. This made a material difference to our financial results. Similar results in 2014 generated incentive payments to all employees in 2015 – the first such payments to salaried employees in four years, and the first-ever for hourly employees.

A leadership renewal initiative in 2015 involved assigning senior management responsibility for key line functions such as fibre management and procurement, to support agile decision-making and prompt action on frontline issues.

LOOKING FORWARD

As in many industries, Catalyst has a large demographic bulge of soon-to-retire employees, and this will drive what is expected to be a need to fill more than 100 diverse positions annually for the next five to seven years. Building on initiatives in 2015, such as an expanded LinkedIn presence, we will continue targeted recruitment.

Given already intense competition for key talent, our recruitment strategy will include a diversified social media presence, the continued offering of apprenticeship positions, and the leveraging of the lifestyle advantages of our operating communities and other benefits of working here.

Large-scale turnover and a changing age demographic within our mills and other workplaces will also drive efforts in 2016 to modernize and revitalize training delivery (allowing, for example, more on-demand training options). This will support what will often be more rapid progression through job levels for new employees, in workplaces where many long-service employees are departing.

Workforce Turnover Summary

Hourly	2011	2012	2013	2014	2015
Retirement	3.5%	4.9%	3.7%	5.3%	6.1%
Voluntary Departure	1.9%	4.7%	2.6%	4.0%	2.5%
Total	5.4%	9.6%	6.3%	9.3%	8.7%
Salaried					
Retirement	5.2%	1.4%	2.2%	2.8%	1.8%
Voluntary Departure	5.2%	12.8%	6.8%	6.7%	6.2%
Total	10.5%	14.2%	9.0%	9.4%	8.0%
Overall	**6.8%**	**10.9%**	**7.0%**	**9.3%**	**8.5%**

Turnover rate is the number of employees either retiring or voluntarily leaving employment during the year, as a percentage of the total workforce at the end of the year.

Total Employees and Payroll

YEAR	WORKFORCE	PAYROLL ($ MILLIONS)
2011	1,877	$ 250
2012	1,592	$ 206
2013	1,611	$ 183
2014	1,598	$ 186
2015	**2,625**	**$ 337**

Workforce figures are for active employees at year-end and exclude vacancies.

Payroll figures are inclusive of benefits and exclusive of restructuring costs (severance).

Unions and Membership (number of employees)

CANADIAN OPERATIONS

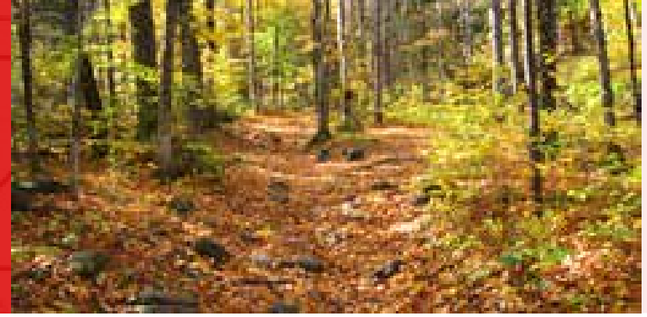
Canadian Office and Professionals Employees Union	2
Unifor	730
Public and Private Workers of Canada*	389

*Previously, Pulp Paper and Woodworkers of Canada. Name changed Sept. 15, 2015.

U.S. OPERATIONS

Office and Professional Employees International Union	9
International Brotherhood of Electrical Workers	73
United Steelworkers of America	709
United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry	13
International Association of Machinists and Aerospace Workers	29

Health & Safety



Hiking trail in the Appalachian Mountains in Maine.
PHOTO BY ROBERT MARTIN, SHIPPER, RUMFORD

2015 Issues & Initiatives

While several mills set records for number of days without a medical incident in 2015, safety performance as a whole was variable. We had higher frequency of both medical and lost-time incidents in the second and third quarters, followed by a performance improvement late in the year. In the end, the frequency of medical and lost-time incidents was essentially consistent with strong performance in 2014, but fell short of targets for further improvement.

Severity measures, in contrast, were significantly improved, with the average number of work days lost due to injury significantly below target. This reflected a trend towards injuries being less severe in nature.

We put a strong focus in 2015 on collaboration among mills on safety improvement, collective action and sharing. Safety and general managers from all our locations worked together on safety initiatives and policy development.

One outcome was a new safety audit program, which was deployed in response to an increase in incidents at a specific mill. Managers from all locations participate, interacting with people throughout the mill, identifying influencing factors, and providing actionable insights to mill management. The first of these assessments took place at Biron in late 2015, with one scheduled for Crofton in early 2016.

Another focal point was encouraging consistent discussions of safety at the start of shifts and when starting new tasks, and improving the quality of these conversations – in part through greater awareness of the state-of-mind participants are in at the time.

Looking Forward

Safety and general managers began work in 2016 on a corporate safety strategy for 2016-19, a key element of which will be more rigorous analysis of safety performance data. That will improve our understanding of the types of injuries and circumstances under which they are occurring.

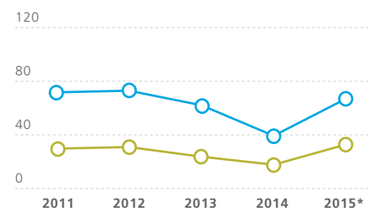
A pilot effort is also underway to identify leading-indicators of safety issues and potential performance declines, including more rigorous tracking of and follow-up on "near miss" incidents.

CATALYST'S SAFETY AND ENVIRONMENTAL STEWARDSHIP OPERATING PHILOSOPHY

Every employee is expected to live up to the highest level of safety and environmental compliance. This means demonstrating the courage to care – which includes being fully accountable for one's actions, watching out for fellow employees, and confronting unsafe actions or conditions that could lead to personal harm.

Employee Injuries

HOW MANY



NUMBER OF INCIDENTS REQUIRING MEDICAL ATTENTION (MIs)

2011	2012	2013	2014	2015*
72	73	62	40	69

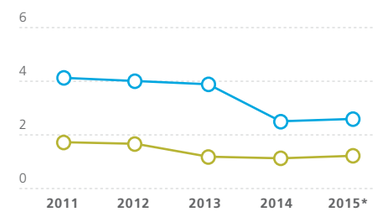
2015 TARGET: 31

NUMBER OF INCIDENTS RESULTING IN LOST TIME FROM WORK (LTIs)

2011	2012	2013	2014	2015*
30	31	24	18	33

2015 TARGET: 14

HOW OFTEN



MIs PER 200,000 HOURS WORKED

2011	2012	2013	2014	2015*
4.15	4.04	3.91	2.51	2.60

2015 TARGET: 2.00

LTIs PER 200,000 HOURS WORKED

2011	2012	2013	2014	2015*
1.73	1.71	1.51	1.13	1.24

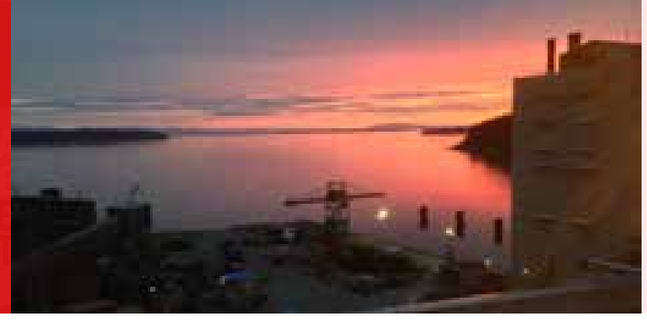
2015 TARGET: 0.90

* The total number of employees nearly doubled in 2015.

Safety Highlights

- The Rumford mill had a record year of safety performance in 2014, and in 2015 was able to maintain safety performance levels, partly as a result of a focus on leadership training that is being applied across the mill.
- The Powell River mill achieved a record 205 days without a lost time incident in 2015, and also achieved its second best MI rate (over the past 14 years of record keeping).
- A new company-wide safety audit process was developed.

Community & Social Engagement



Classic Powell River sunset from roof of Power Boiler #19.
PHOTO BY BRAD WINCHELL, MAINTENANCE ENGINEER, POWELL RIVER

Value Distribution

Catalyst has a significant and long-standing presence in the communities where it operates. It also has a noteworthy social and economic footprint within each of the communities where it operates.

In 2015, the amount of economic impact or "value distribution" totaled approximately $1 billion in Canada and $916 million in the United States, with additional payments to creditors of $43 million. This does not include the significant amounts paid out by pension plans either managed by or contributed to by the company.

Value Distributed ($ millions)

		CANADA	U.S.	TOTAL ($ MILLIONS)
EMPLOYEES & SOCIETY	**Employees** (wages, salaries & benefits, excluding restructuring costs)	177	159	**337**
	Society (donations)	0.04	0.01	**0.05**
SUPPLIERS & BUSINESS PARTNERS	**Fibre & Other Raw Materials**	310	385	**695**
	Energy (excludes Canadian carbon tax)	169	99	**268**
	Capital Projects	25	10	**34**
	Chemicals, Operating and Finishing Supplies	115	73	**188**
	Other Expenditures	242	186	**428**
GOVERNMENTS SHAREHOLDERS CREDITORS	**Governments** (property taxes, U.S. operations sales taxes, carbon taxes and B.C. PST incurred)	30	5	**35**
	Shareholders	nil	nil	**nil**
	Creditors (interest payments)	—	—	**43**
Total Direct Value Distributed				**2,029**

Benefits include employer contributions to pension and other benefit plans.

Open Dialogue

Catalyst stays connected with its operating communities through formal Community Advisory Forums in British Columbia. Forums met at our Crofton and Powell River mills in 2015 – with renewed interest at the Crofton mill after a period of inactivity – with briefing topics including the Environmental Effects Monitoring program.

An open house was also held at Lake Cowichan, near Crofton, to provide an overview of our application for a permit to use submersible pumps to move additional water into the Cowichan River if weather conditions require (see page 39).

Catalyst seeks to support local communities through expertise and collaboration. At Powell River, for example, a mutual assistance agreement with the local fire department results in regular joint emergency preparedness exercises throughout the year, including a large-scale "live casualty" exercise in 2015, and other assistance such as loaned equipment and shared training arrangements.

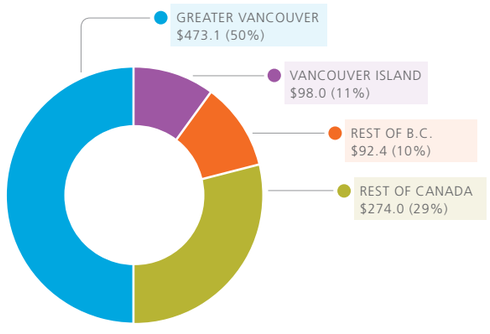
Community Investment

In keeping with a necessary focus on cash-flow management, Catalyst currently provides modest levels of donations and direct financial support to operating communities. At our Richmond head office, and in those operating communities where it has a presence, annual employee-supported campaigns raise significant amounts for the United Way. Employee and corporate donations totalled $90,500 in 2015.

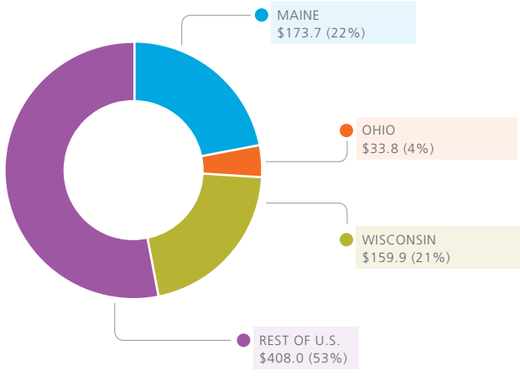
We also provide modest financial support for local initiatives – such as sports teams, youth programs and community events – at the mill level.

Catalyst also supports several long-standing post-secondary scholarship programs in British Columbia, including ones targeting relevant fields of study at the University of British Columbia.

Total Spending with Canadian Vendors ($ millions)



Total Spending with U.S. Vendors ($ millions)



Community & Social Engagement

Legacy dam at Great Central Lake / Stamp River (near Port Alberni), used to store and release water for fish flow.

PHOTO BY LARRY CROSS, ENVIRONMENTAL MANAGER, PORT ALBERNI

COMMUNITY BENEFITS

Workforce figures are for active employees at year-end and exclude vacancies.

Local spending includes vendors with addresses in the local municipality.

Payroll figures are inclusive of benefits and exclusive of restructuring costs (severance).

Crofton

Jobs	591
Wages & Benefits ($ million)	$ 69
Local Property Taxes ($ million)	$ 4.6
Spending with Local Vendors ($ million)	$ 6.8

Port Alberni

Jobs	317
Wages & Benefits ($ million)	$ 35
Local Property Taxes ($ million)	$ 4.2
Spending with Local Vendors ($ million)	$ 14.1

Powell River

Jobs	383
Wages & Benefits ($ million)	$ 41
Local Property Taxes ($ million)	$ 3.4
Spending with Local Vendors ($ million)	$ 10.1

Nanaimo / Other

Jobs	30
Wages & Benefits ($ million)	$ 3
Spending with Local Vendors ($ million)	$ 58.8

Surrey

Jobs	74
Wages & Benefits ($ million)	$ 6
Spending with Local Vendors ($ million)	$ 55.3

Richmond / Seattle

Jobs	146
Wages & Benefits ($ million)	$ 23
Spending with Local Vendors ($ million)	$ 31.9

Rumford

Jobs	621
Wages & Benefits ($ million)	$ 93
Local Property Taxes ($ million)	$ 4.0
Spending with Local Vendors ($ million)	$ 9.3

Dayton

Jobs	72
Wages & Benefits ($ million)	$ 13
Spending with Local Vendors ($ million)	$ 4.1

Biron / Wisconsin Rapids

Jobs	381
Wages & Benefits ($ million)	$ 54
Spending with Local Vendors ($ million)	$ 114.8

DEEPLY IMPRINTED ON LOCAL HISTORY

Catalyst is actively engaged in the communities in which it operates. Several 19th century grindstones (from the province's very first paper mill) were made into a monument in the 1940s by one of our predecessor companies. Located in front of the Port Alberni mill, they were moved in 2015 to a newly developed park with support from the City of Port Alberni.

On the other side of the continent, the play *Papermaker*, performed at Maine's Portland Stage, was written by a playwright who grew up across the river from the Rumford mill and whose father worked there. It was set during a mill strike in a small Maine town, and the cast and crew toured the Rumford mill to get a better feel for the setting that no doubt influenced their performance.

HALALT FIRST NATION LEGAL ACTIONS

Catalyst is committed to working collaboratively with community stakeholders, including our First Nations neighbours with whom we have developed positive relationships. In this spirit of collaboration, Catalyst was in discussion with the Halalt First Nation on Vancouver Island and Sunvault Energy Inc. to explore the establishment of a long-term joint venture biomass project at the Crofton mill that the Halalt and Sunvault proposed to Catalyst. Catalyst was concurrently evaluating a distinctly different proposal by another party.

Ultimately, Catalyst decided not to proceed with either joint-venture proposal. After informing the Halalt of our decision, they filed a notice of civil claim against Catalyst alleging that Catalyst breached a confidentiality agreement entered into in connection with the proposed project. The Halalt concurrently filed a second notice of civil claim against Catalyst alleging Catalyst has illegally trespassed on, and caused damages to, the Halalt's asserted territories and fisheries resources through the operation of Catalyst's Crofton mill since 1957. Catalyst denies the allegations in both claims and intends to vigorously defend itself.

The Halalt filed a third claim against each of the governments of British Columbia and Canada challenging the constitutionality of the facility's various government issued operating permits and licences.

Fibre & Forest Management

Scott Jackan (Technician), Biron, collecting routine water samples for testing.
PHOTO BY HEIDI HAMMITT, TIMEKEEPER, BIRON

Diverse Fibre Sources

Wood fibre is the fundamental building block of pulp and paper. While Catalyst does not manage forests, we are fully accountable for ensuring that our fibre comes from sustainable sources.

Our Canadian mills obtain the large majority of their fibre as woodchips. These chips are a waste or byproduct of sawmills, which process the large diameter trees that grow in this region. The remainder of the Canadian fibre supply is made up of pulp logs which are not suitable for use in sawmilling.

Our U.S. mills obtain their fibre primarily in log form sourced directly from public and private forests. These pulp logs – which are generally unsuitable for sawlog production due to size, species and quality – are processed into wood chips by chipping facilities associated with our pulp mills. Additional chips are purchased as necessary from regional sawmills and other chip processing facilities.

Both U.S. mills also use "post-consumer waste" paper that has been recovered through municipal and other recovery programs. This source allows for recycled content in several of our product lines. Externally produced pulps, with reinforcing properties required for some products, are also used at Port Alberni, Biron and Rumford.

Strong Sustainability Attributes

Following decisions on where Catalyst responsibly sources from, and our work to forward solutions in the ancient and endangered forests, we turn to certification to ensure that harvesting is conducted with sustainable practices. Catalyst's fibre supply policy requires third-party verification that wood has:

- been harvested legally, and not in violation of traditional and civil rights
- not been harvested in forests where high conservation values are threatened
- not sourced from plantations or land being converted into plantations
- not been sourced from genetically modified trees

Catalyst exceeds these basic criteria for the large proportion of our fibre coming from forests certified under third-party systems that ensure important conservation and sustainability standards are met. In addition to PEFC/SFI-certified fibre available from all mills, our U.S. mills process significant volumes of FSC fibre.

All of our mills have chain-of-custody systems, certified by FSC, PEFC and SFI, enabling them to verify the origin and certification status of specific products for customers wishing this additional assurance. Also, 100 per cent of our fibre meets the FSC risk assessment process and also 100 per cent SFI certified sourcing.

While not eligible for inclusion in the fibre tracked through chain-of-custody systems, fibre harvested by individuals or logging firms with a "Master Logger" designation is purchased by our U.S. mills, and is an additional form of sustainability-based certification.

CERTIFICATION: THE LEADING SYSTEMS

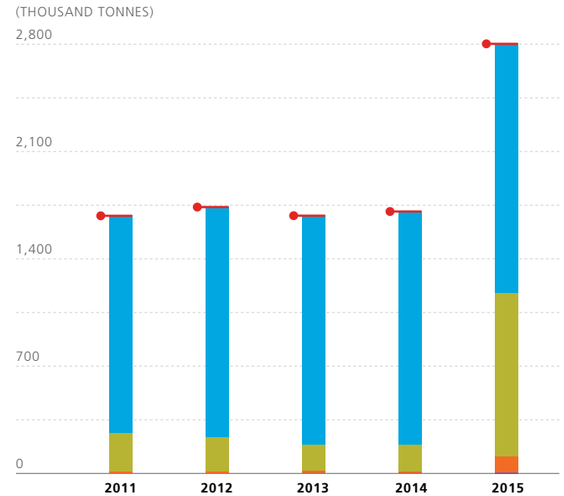
Catalyst buys, tracks and sells wood fibre certified to three leading systems:

Forest Stewardship Council – FSC is a long-standing international certification program, which enjoys particularly strong support from ENGOs, Aboriginal groups and customers, and widespread market recognition and acceptance of its brand.

Programme for the Endorsement of Forest Certification – PEFC is a global program that validates national or regional forest management standards (including SFI) against its own benchmarks, providing a designation that accommodates the diversity of global forests.

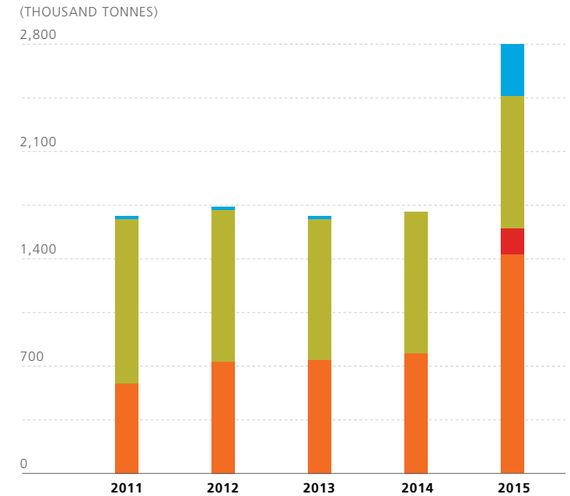
Sustainable Forestry Initiative – SFI is a North American-based certification program. It is overseen by an independent non-profit organization with a multi-stakeholder board.

Fibre Use by Type



	2011	2012	2013	2014	2015
TOTAL FIBRE (TONNES)	1,687,884	1,738,207	1,685,294	1,712,216	2,796,406
BREAKDOWN (TONNES)					
WOOD CHIPS	1,435,000	1,509,000	1,502,000	1,525,000	1,628,812
PULP LOGS	245,000	220,000	170,000	174,000	1,063,172
PURCHASED VIRGIN PULP	7,884	9,207	13,294	13,216	97,231
PURCHASED RECYCLED PULP (RECOVERED PAPER)	NIL	NIL	NIL	NIL	7,191

Chain-of-Custody / Audited Fibre



	2011	2012	2013	2014	2015
FSC CERTIFIED %	1	1	1	0	12%
PEFC/SFI CERTIFIED % [1]	64	57	55	54	31%
MASTER LOGGER %	NIL	NIL	NIL	NIL	6%
NON-AUDITED % [2]	36	42	44	46	51%

[1] Including American Tree Farm System certification.

[2] One hundred per cent of our fibre is low risk under the FSC risk assessment process, and also meets the SFI certified sourcing standard.

Fibre & Forest Management

The rare Kermode Bear in the Great Bear Rainforest.
PHOTO: iSTOCK.COM

2015 Issues & Initiatives

Catalyst has been involved since 1998 – through the Coast Forest Conservation Initiative – in the development of an ecosystem-based management plan in British Columbia's Great Bear Rainforest. A legal land-use order for the region, drafted in 2015 and signed in early 2016, was the culmination of this remarkable collaborative effort on the part of the forest-products industry, Greenpeace and other environmental organizations, indigenous First Nations governments and the British Columbia government.

With this final milestone reached, 85 per cent, or 3.1 million hectares of the forested landbase of this globally unique coastal area will be left for the next 250 years, with 38 per cent formally protected under the Parks Act. Agreements have also been signed between the Province of British Columbia and official representatives of the over twenty First Nations groups living in the Great Bear Rainforest, addressing social and economic issues of particular relevance to them.

Catalyst also supported The Recycling Partnership, a national non-profit that promotes community curbside recycling programs in the U.S., and thus improves availability of recovered paper. This initiative has active support from among our major publishing customers as well, and in 2015 the Recycling Partnership brought about recovery of close to 25,000 tons of additional material.

Catalyst supported Woods & Wildlife for Today & Tomorrow, an initiative of the Golden Sands Resource Conservation & Development Council in Wisconsin. The Council is using a group-management approach to make certification more feasible for small forest landowners within the supply area for our Biron mill.

THE RECYCLING PARTNERSHIP

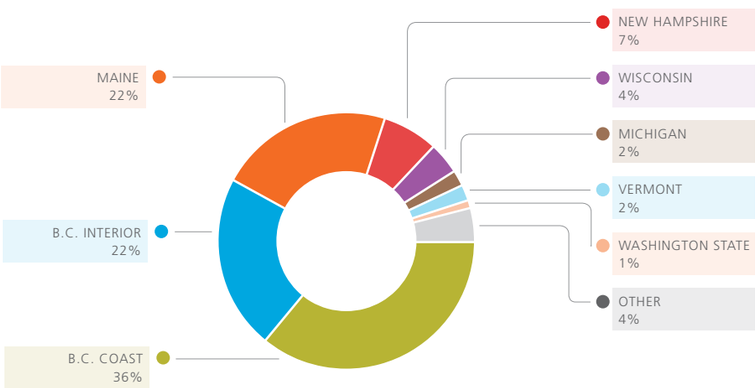
Golden Sands Resource Conservation & Development Council, Inc.

Looking Forward

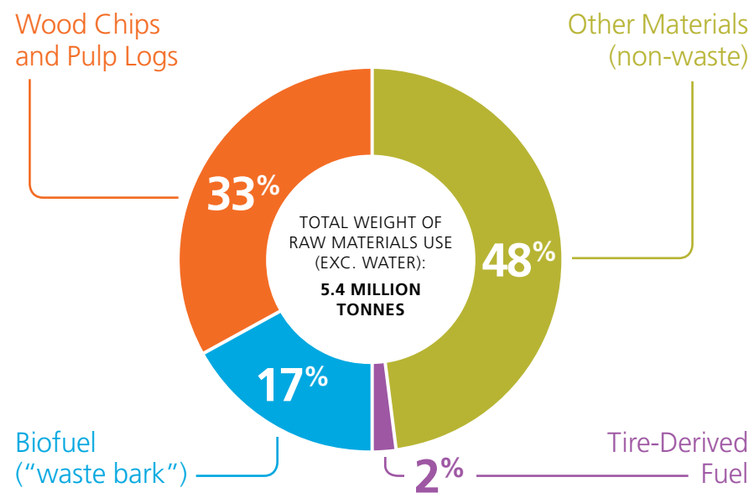
While fibre availability was good in 2015, supplies in British Columbia will at some point be impacted by the Mountain Pine Beetle epidemic, which killed large areas of interior forests. In one effort to increase the supply, Catalyst anticipates working with suppliers to test the viability of small chipping operations within forests, to capture fibre leftover after harvesting that would otherwise go unused.

In recent years, some environmental groups began to advocate for the protection of additional areas of rainforest on Vancouver Island, including areas from which Catalyst traditionally obtains fibre. As with the Great Bear Rainforest, we anticipate being involved in what we hope will be multi-stakeholder efforts in 2016 to resolve these emerging issues.

Geographic Origin of Fibre



Source of Raw Materials



More than half of the total weight of raw materials used by Catalyst in 2015 was sourced from waste or byproducts in the form of wood chips and pulp logs (unsuitable for use in solid wood products), and other wood waste used as fuel to generate energy.

CATALYST RETURNS TO RECYCLED FIBRE CONTENT

With the dramatic decline of North American paper production and substantial increase in export of old newspapers to China over the past decade, Catalyst found it impossible to continue to viably source recycled fibre for our BC mills. Our acquisition of Biron and Rumford in the eastern U.S. allows us to once again offer up to 30 per cent post-consumer waste content in most of our paper grades filling a previous gap in our product range.

SETTING A PATH TO SOLUTIONS IN THE BOREAL

During 2015, Catalyst sought a new supplier for some of the reinforcing pulp required at our Biron mill. One candidate to emerge was the Terrace Bay Pulp Mill, located in northwestern Ontario.

However, the mill's location in the Boreal Forest – where forest management continues to be controversial in many areas – called for caution. We therefore reached out to environmental groups Canopy and Greenpeace, and involved them in our assessment and sustainability requirements of fibre supply area and harvesting plans.

This not only resulted in a favourable finding in relation to the supplier (whose parent company is also implementing a global wood sourcing policy with Canopy) but in the incorporation of key conservation and First Nations' rights clauses in our supply contract that break new ground in our relationship with fibre suppliers.

Among other commitments, the contract requires science-based conservation in critical areas of the boreal forest by the end of 2016, with fibre sourced with the consent of impacted First Nations, to provide at least 30 per cent FSC-certified product with plans to increase this to close to 75 per cent moving forward, and to remain committed to its ongoing collaborative work with environmental groups.

Our Port Alberni mill also uses reinforcing pulp, coming from a Boreal source in northern Alberta. This supply is 100 per cent FSC certified.

Energy Use & Carbon Management

Energy Intensive, Energy Conscious

Paper manufacturing is energy intensive, and energy use in turn is the main source of Catalyst's carbon emissions. We continually invest in and improve energy efficiency at our mills, self-generate a significant proportion of our electricity, and are collaborating to reduce our draw on energy grids at times of high demand.

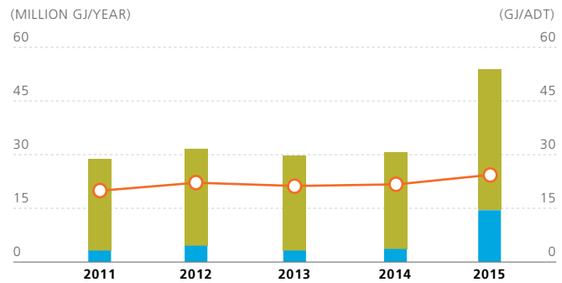
With the benefit of a provincial supply derived mainly from hydro-electricity, and of self-generation based mainly on wood biomass, renewable energy use at our Canadian mills is between 89 and 93 per cent. While our U.S. mills are more reliant on fossil fuels, the Rumford mill's fuel mix is primarily renewable and also uses high proportions of waste-derived fuel sources.

Rumford is also the largest consumer on the U.S. east coast of fuel derived from old tires, reducing both landfill consumption and significant management challenges associated with this particular waste stream.

Both the Powell River and Rumford mills generate surplus electricity for sale, providing an additional product line and revenue stream. Rumford can provide renewable energy certificates to accompany some of its power sales, based on a certification of its use of a pulping byproduct as a fuel. Optimizing self-generation is a focus at all our mills.

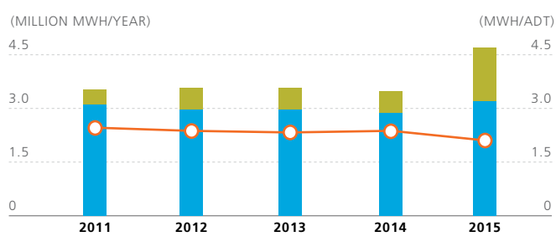
Catalyst has long had rigorous carbon accounting and management in place, and our Canadian mills have reduced their direct GHG emissions by 85 per cent in absolute terms since 1990. More recently, we have begun to account for our indirect (up- and downstream) GHG emissions, and we led the industry with the introduction in 2007 of carbon-neutral paper, now marketed under our Sage brand.

Total Fuel Energy Use



	2011	2012	2013	2014	2015
RENEWABLES (MILLION GJ/YR)	25.8	27.2	26.9	27.0	39.2
FOSSIL FUELS (MILLION GJ/YR)	3.5	4.7	3.2	3.4	14.5
INTENSITY (GJ/ADT)	20	22	21	21	24

Total Electricity Use



	2011	2012	2013	2014	2015
SELF GENERATED ELECTRICITY (MILLION MWH/YR)	0.4	0.6	0.6	0.6	1.5
PURCHASED ELECTRICITY (MILLION MWH/YR)	3.1	3.0	3.0	2.9	3.2
INTENSITY (MWH/ADT)	2.5	2.4	2.4	2.4	2.1

GJ – GIGAJOULES
MWH – MEGAWATT-HOURS
ADT – AIR-DRIED TONNES OF PRODUCT

TRANSPORTING PRODUCTS THE SMARTWAY®

Outbound product shipments are the largest component of Catalyst's Scope 3 or indirect GHG emissions. Our Canadian mills have long-standing certification under the U.S. Environmental Protection Agency's SmartWay® program. This requires use of shipping partners that meet fuel efficiency and other emission-reducing criteria. At year-end we were assessing the readiness of our U.S. mills for SmartWay® registration, which is likely to occur in 2016. Careful load and route planning is also a consistent feature of our distribution strategy, in an effort to reduce product transportation miles.

2015 Issues & Initiatives

The significant increase in greenhouse gas emissions (GHG) in 2015, in both absolute and intensity terms, is overwhelmingly attributable to the acquisition of the U.S. mills, which make more extensive use of fossil fuels (although corporate-wide about three-quarters of our energy use continued to come from renewable sources).

On a mill-specific basis, there were minor year-over-year variances in GHG intensity. The only larger change was at Powell River. This reflected in part the impact of the closure of a paper machine that was first curtailed on October 31, 2014 (i.e., production dropped by a larger proportion than did GHG emissions). Additionally, the method of allocating GHG and other emissions – between paper production and production of power for sale – was finalized in 2015. This corrected for a previous under-allocation to paper. (This is further reflected in increases in other air emissions at this operation.)

A 35-year-old generating bank on a recovery boiler at Rumford was completely rebuilt. This extremely complex project was completed ahead of schedule, under budget and injury free. This project supports Rumford's ability to self-generate energy for its own use and for sale, while reducing its exposure to high seasonal energy costs.

In January, Crofton became the first pulp and paper facility in North America to have its energy management system certified to the ISO 50001 standard. This has accelerated progress on conservation – and better ensured sustained results – through measures including higher awareness, expanded training, and more rigorous verification and documentation of results. And it helped achieve a 3.7 per cent energy use reduction at the mill in 2015, while sustaining a trend towards increased self-generation and reduced energy purchases.

All our mills continued to pursue opportunities to transition to more energy-efficient equipment and operating procedures. At Port Alberni, for example, an air compressor was replaced with a smaller one with smart controls and a variable-speed drive. This enabled an energy-saving reduction in pressure in the compressed air system, and indefinite deferral of the rebuild of the existing compressor that would otherwise have been required.

The Surrey Distribution Centre began a process of converting lift trucks from internal combustion to electric motors, leveraging improved acceleration and other features of recently developed models. In addition to lower operating costs and greater operator comfort, each truck is expected to result in a net annual reduction of approximately 42 tonnes of GHGs.

Carbon content continued to be factored into our procurement decisions. Conversion proceeded from use of pure latex for coating paper, to use of a combination of starch-based bio-latex with traditional latex. This substitution of an organic input for a petrochemical input resulted in avoidance of 1.1 million kg of carbon dioxide based on the volume of coating material purchased during 2015.

British Columbia has a comprehensive carbon tax, which at $30/tonne is the highest in North America. In 2015, Catalyst paid $5.3 million directly in carbon tax at our operations there, and another $3.8 million indirectly through payments to shippers.

MORE GREEN ENERGY AND CONSERVATION OPPORTUNITIES

A new turbine at Powell River is capturing the energy of a previously unharnessed steam source. The steam comes from an existing turbine, and while some is used in the papermaking process, the rest of it used to simply be directed to a condenser for recovery.

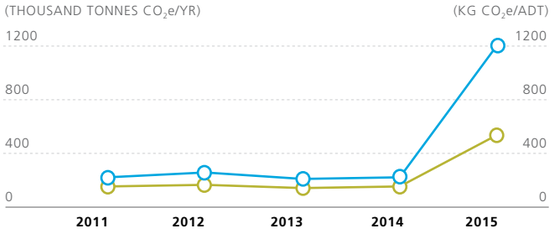
The additional turbine is now using this medium-pressure steam to generate about 11 MW of energy, without any additional fuel usage. This is expected to reduce the mill's electricity costs by about $4.7 million annually.

Significantly, the project also unlocks further conservation potential in the paper mill. Whereas steam conservation would previously have simply reduced use of an excess supply, the cost of implementing conservation measures can now be offset by increased generation on the new turbine.

Energy Use & Carbon Management

Heron by the Somass River, right next to the Port Alberni mill.
PHOTO BY LARRY CROSS (ENVIRONMENTAL MANAGER), PORT ALBERNI

Direct GHG Emissions (Scope 1)



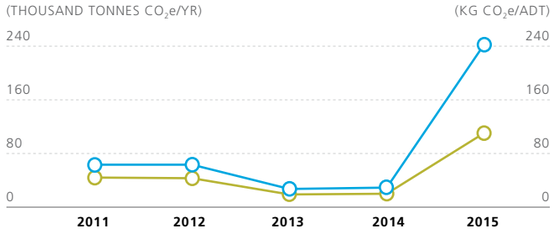
	2011	2012	2013	2014	2015
ABSOLUTE (THOUSAND TONNES CO_2e/YR)	217	247	203	214	1,199
INTENSITY (KG CO_2e/ADT)	151	169	141	146	542

Indirect GHG Emissions are based in part on annually revised BC Hydro estimates.

Greenhouse gas (GHG) emissions (Scopes 1 and 2) are reported based on measurement and calculation methodologies consistent with the Western Climate Initiative and mandatory reporting required by the province of British Columbia.

GJ – GIGAJOULES
MWH – MEGAWATT-HOURS
ADT – AIR-DRIED TONNES OF PRODUCT
CO_2e – CARBON DIOXIDE EQUIVALENT

Indirect GHG Emissions (Scope 2)



	2011	2012	2013	2014	2015
ABSOLUTE (THOUSAND TONNES CO_2e/YR)	63	63	27	29	242
INTENSITY (KG CO_2e/ADT)	44	43	19	20	110

In 2012, Catalyst began selling some electricity externally at Powell River, and in 2015 it began doing so more extensively with the acquisition of the Rumford mill. The GHG emissions above are those attributable to paper production (figures for 2012-2014 have been adjusted). See page 49 for a quantification of the much smaller amount of GHGs and other air emissions attributable specifically to production of power for sale.

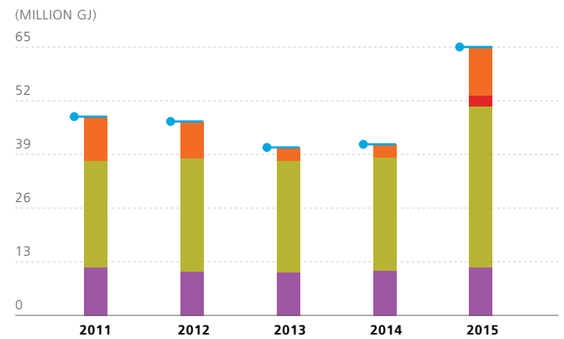
Indirect GHG Emissions (Scope 3) (Tonnes)

UPSTREAM	
Inbound raw fibre	276,049
Inbound materials	131,018
Employee commuting	9,981
Business travel	4,011
Waste disposal	1,749

DOWNSTREAM	
Outbound product	285,853
End-of-Life paper	151,305
Printing on paper	66,348
Leased facilities	2,017

These estimates of upstream and downstream Scope 3 GHG emissions are based on per tonne estimates undertaken by the company as part of its WWF Climate Savers membership, applied to 2015 production tonnage. In combination with known Scope 1 (direct) and Scope 2 (purchased energy) emissions, they result in a total carbon footprint of 1,071 kg of CO_2e/tonne of Catalyst product, this compares to an industry average of 3,149 kg of CO_2e/tonne. Environmental impact estimates were made using the Environmental Paper Network Paper Calculator Version 3.2.1. For more information visit *www.papercalculator.org*.

Energy Mix & Renewability

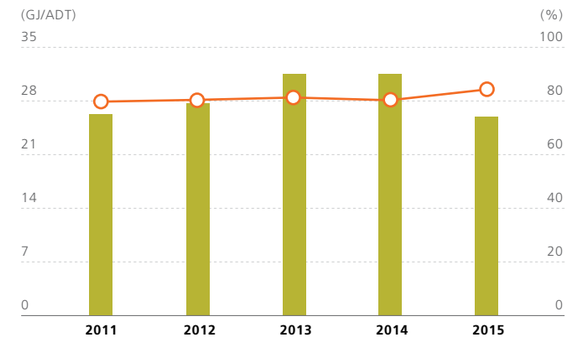


	2011	2012	2013	2014	2015
ABSOLUTE ENERGY USE (GJ MILLIONS)	48.2	47.0	40.7	40.9	65.1
BREAKDOWN %					
FOSSIL FUELS	23	19	8	8	18
ALTERNATIVE FUELS	0	0	0	0	4
BIOMASS FUELS	53	58	66	66	60
ELECTRICAL ENERGY	24	23	26	26	18

Breakdowns are based on net energy use and account for the use of some fuel energy to self-generate electricity.

From its acquisition in April 2008 to its closure in September 2012, Catalyst operated a recycled newsprint mill at Snowflake, Arizona. For better year-to-year comparability, the operation of this mill is not factored into most environmental performance metrics included in this report. It is, however, included in the figures in the graph above, given the particularly significant impact that the operation of this coal-fueled mill had on energy-related metrics.

Intensity & Renewable %



	2011	2012	2013	2014	2015
INTENSITY (GJ/ADT)	28.0	27.9	28.2	27.9	29.4
% RENEWABLE	75	79	90	90	74

Looking Forward

The Rumford mill has an earlier Maximum Achievable Control Technology (MACT) compliance date of January 31, 2016, and tests in 2015 confirmed that it can comply with the new limits without major upgrades or operational changes (see more on page 42). The mill will therefore continue to leverage boiler designs that efficiently consume a wide range of solid fuels. This includes renewables such as wood biomass and pulping byproducts, and waste-derived fuels such as chipped tires and railway ties. Upgrades to both the boilers and the alternative fuel delivery system in 2015 will help ensure efficient and compliant operation.

Catalyst will continue to participate in a "load displacement" program, which reduces the use of electricity at peak demand periods.

Water Use & Quality

View from inside one Powell River breakwater – a "Hulk" – looking to another.

PHOTO BY BILL CHINN (PROTECTION WORKING FOREMAN AND ERT SUPERVISOR), POWELL RIVER

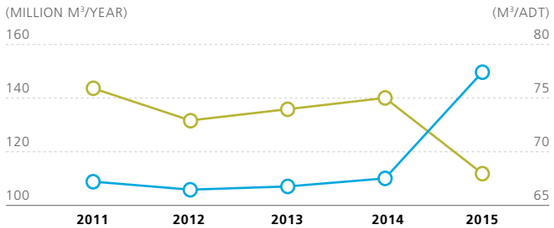
2015 Issues & Initiatives

The Crofton mill further reduced its water use, particularly in the dry summer months, in response to severe drought conditions impacting the Cowichan River, its primary water source. The mill improved the reliability of its ocean intake, enabling it to more aggressively substitute salt for fresh water where possible. It also maintained its focus on cooling effluent more efficiently, and avoided any summertime use of fresh water from the river for effluent cooling purposes.

The Powell River mill achieved more stable operation at its secondary effluent treatment plant. This was in part due to better understanding and anticipating the impact of more frequent shifts in paper grade production. Operators were also equipped with real-time insight on parameters that indicate and impact the health of the microbes used in the treatment process.

Our Canadian mills continued their involvement in the federal Environmental Effects Monitoring program, now it its seventh three-year cycle. Fieldwork was conducted in 2015, this time including water, sediment and invertebrate sampling adjacent to the mills. The work in previous cycles has confirmed diminishing impacts from mill operations and improving marine habitats.

Process Water Discharges



	2011	2012	2013	2014	2015
ABSOLUTE (MILLION M³/YEAR)	109	106	107	110	150
INTENSITY (M³/ADT)	76	73	74	75	68

Consistent with standard industry practice, we track our water used based on treated effluent discharges, consisting of water use in manufacturing processes. In 2015, an additional 121 million m^3 of water was used for cooling purposes, but did not come into direct contact with manufacturing processes.

ADT – AIR-DRIED TONNE OF PRODUCT

M^3 – CUBIC METRES

TACKLING TOXICITY

In 2013 and 2014 our Powell River mill had a spike in failed toxicity tests on the water released from its cooling and storm water outfalls. A mill-wide team was assembled in late 2014 to more rigorously assess root causes and identify corrective actions, and in 2015 all tests passed.

Among the team's findings was that some previous failures were caused by testing errors at an external lab, and procedural changes have been made to ensure accurate test results.

The team also found that even tiny amounts of dissolved zinc can result in toxicity to trout, and possible sources were thoroughly assessed. This included the theory that zinc was originating when seagull guano was washed off galvanized metal by rain, but no such exposed metal was found at the mill.

With dissolved zinc showing up in test samples only intermittently and in trace amounts, it has not yet been possible to pinpoint its source. However, routine testing is now in place on storm water collection streams that are potential pathways. So if there is a future toxicity event associated with zinc, the mill will be better able to zero in on the cause.

Looking Forward

The Rumford mill completed an environmental impact study and the findings, endorsed by state regulators, concluded that the natural water chemistry of the river allows discharge levels for metals in effluent to be protective at higher than the default levels. Under federal review at year end, the findings would be subject to public hearings prior to being incorporated into a permit amendment.

The Biron mill will provide operators with better real-time sightlines on total suspended solids (TSS) in effluent, in an effort to address elevated levels in 2015. Rolling average data, covering a period of several hours or more, will better enable identification of sustained contributing factors. Elevated TSS represents both an excess loss of fibre and other inputs, and increased effluent treatment costs.

A late summer storm damaged one of the concrete ships, or "hulks," that sit at anchor off our Powell River mill to form a breakwater. The ship was stabilized, and was then brought into the dock in late 2015 for more extensive repairs. We are working with external experts to assess long-term disposal options for this and other hulks, since the full set of 10 is no longer needed.

British Columbia's new Water Sustainability Act will come into force in early 2016. While it focuses largely on better regulation of groundwater use, it will also increase costs for licensed users of surface water such as Catalyst, effective at the end of 2016.

MANAGING THROUGH A DROUGHT

While our British Columbia mills are all located within a coastal rainforest, they weren't immune from drought conditions impacting much of western North America in 2015.

The challenges were greatest at Crofton, which is licensed to operate a weir to control water flows from Cowichan Lake into the Cowichan River – the water source for the mill, the community, and many other users. Normally, sufficient water can be held back in the lake in the spring to maintain targeted flows through the summer months. But a low winter snow pack and limited precipitation made that impossible this year.

Working in concert with regulators and stakeholders, we reduced summertime river flows to below their usual levels, while keeping them sufficient to maintain fish habitat, and we cooperated in extensive fish monitoring and recovery efforts in the river.

The Crofton mill also reduced its own river water use by six per cent (year-over-year) during the critical high water demand period of July.

Unusual late-summer rains restored adequate flows. As a short-term solution, we have applied for a permit to use submersible pumps to move more water from lake to river if required in 2016 and 2017. We are also considering longer-term modification or replacement of the existing weir.

Our Port Alberni mill was similarly but less severely impacted by the drought conditions, and engaged with other stakeholders on water management and fish habitat protection in the Great Central Lake system, where it also manages a dam. Water releases were timed to coincide with low atmospheric pressure and rain, in a successful effort to better enable salmon to transit through low rivers and into the lakes.

Port Alberni mill's environmental manager, Larry Cross, was recognized with an award from the Canadian Department of Fisheries and Oceans for his involvement in this process.

Solid Waste & Air Emissions

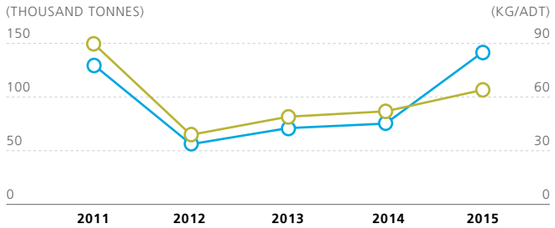
A lone kayaker on Spencer Lake in Northern Maine.
PHOTO BY ROBERT MARTIN (SHIPPER), RUMFORD

Solid Wastes

About 60 per cent of the fly ash waste generated at the Rumford mill's power boilers was beneficially used at a Quebec landfill (a continuation of a long-standing practice). Limestone is injected during boiler operation to control sulphur dioxide emissions, and this in turn results in ash that acts much like cement, which the landfill uses as a stabilizing material.

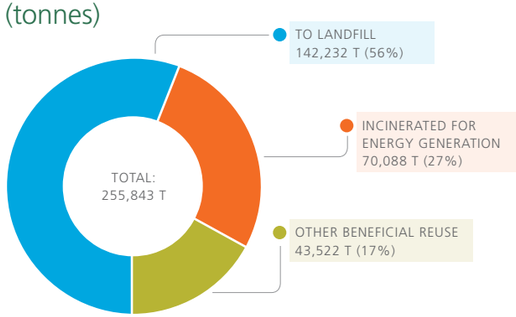
Our mills continued to improve landfill management. A new overflow line was installed at Powell River's recently expanded landfill, to address a risk factor that led to a reportable spill in 2014. A combination of heavy rains and extensive transport of waste, after which truck beds are washed on-site, resulted in surface runoff exceeding the capacity of the existing collection infrastructure.

Solid Waste to Landfill



	2011	2012	2013	2014	2015
THOUSAND TONNES	130	57	71	76	142
KG/ADT	90	39	49	52	64

Solid Wastes (tonnes)

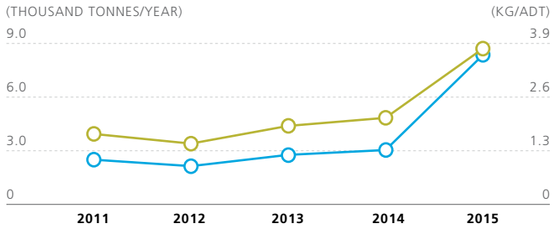


Air Emissions

Long-standing efforts to reduce chlorine dioxide emissions at Crofton continued. However, a "mutual destruction" strategy, involving combining chlorine dioxide and total reduced sulphur emissions, ultimately proved ineffective. Implementation of "mutual destruction" remains under consideration as an odour control measure.

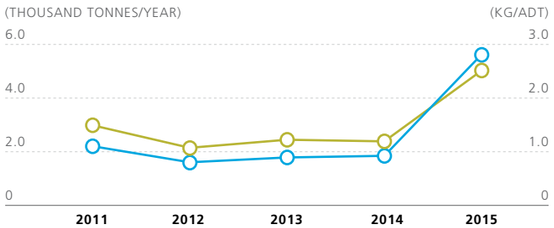
Crofton significantly improved the efficiency of the precipitator – a key piece of pollution control equipment – on its biomass-fueled power boiler (PB4). This was due in part to an employee-initiated shift to more frequent "rapping," or dislodging of collected particulates from the precipitator's plates. Increased washing of biomass fuel prior to use, to remove salt content, further contributed to cleaner emissions. This in turn allowed for more substitution of biomass for fossil fuels. In the end result, the boiler produced nearly the same amount of steam energy as in 2014, while using one-third less fossil fuel and releasing 17 per cent fewer particulates from its stack.

Total Sulphur Oxides[1,2]



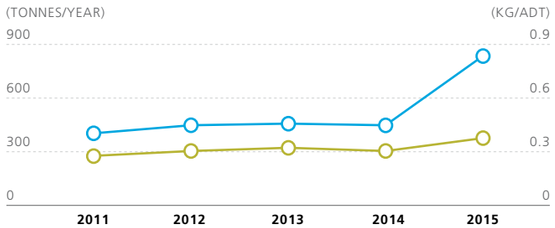
	2011	2012	2013	2014	2015
THOUSAND TONNES/YEAR	2.5	2.2	2.8	3.1	8.4
KG/ADT	1.7	1.5	1.9	2.1	3.8

Total Nitrogen Oxides[1]



	2011	2012	2013	2014	2015
THOUSAND TONNES/YEAR	2.2	1.6	1.8	1.8	5.6
KG/ADT	1.50	1.09	1.22	1.20	2.52

Total Air Particulate[1,2]



	2011	2012	2013	2014	2015
TONNES/YEAR	408	446	458	454	836
KG/ADT	0.28	0.31	0.32	0.31	0.38

[1] In 2012, Catalyst began selling some electricity externally at Powell River, and in 2015 it began doing so more extensively with the acquisition of the Rumford mill. The emissions above are those attributable to paper production (figures for 2012-2014 have been adjusted). See page 49 for a quantification of the much smaller amount of GHGs and other air emissions attributable specifically to production of power for sale.

[2] Based on actual test results; NPRI data may differ due to use of emission factors and inclusion of other sources. See page 59.

ADT – AIR-DRIED TONNES OF PRODUCT
KG – KILOGRAMS

Solid Waste & Air Emissions

The Crofton mill fibre line, recausticizing area and recovery boiler buildings.
PHOTO BY EDINSON MAHECHA (ENERGY SITE MANAGER), CROFTON

Looking Forward

The Biron mill's emissions footprint will be significantly lightened, due to the determination made in 2015 to convert a boiler currently fueled by high-sulphur coal to natural gas and to back-up status (see below). Consistent with the requirements of the Environmental Protection Agency's Maximum Achievable Control Technology standards, coal burning in this boiler will cease prior to January 31, 2017. Testing and modelling in 2015 projects a significant CO_2 reduction, the near complete elimination of sulphur dioxide, and large reductions in other priority emissions.

BIRON BOILER CONVERSION: ANTICIPATED EMISSION REDUCTIONS (TONNES/YEAR)*

	2014 BASELINE	PROJECTED	REDUCTION
Sulphur dioxide	5,447	0.68	**99.99%**
Particulate	208	8.6	**96%**
Nitrogen Oxide	1,702	158	**91%**
Greenhouse Gas	233,749	135,769	**42%**

* Projections as of February 2016 and subject to change based on finalized engineering

Testing at our Canadian mills has confirmed that they are positioned to comply with anticipated new federal emissions standards relating to both nitrogen oxide and sulphur dioxide. A sulphur dioxide monitoring station at Port Alberni, installed in 2014, continues to show extremely low levels of this emission in the local air shed.

Our mills also continued their collaboration with regulatory agencies to ensure permit requirements align with current operations and best practices. Powell River's highly prescriptive emissions permit, for example, requires use of monitors that are no longer the best available equipment, and specifies monitoring locations that no longer relate to the mill's emissions. We will continue our efforts in 2016 to secure permit updates addressing such deficiencies.

TAKING HIGH-SULPHUR COAL OUT OF THE MIX

After extensive efforts extending over two years, our Biron mill determined how it will comply with pending Maximum Achievable Control Technology (MACT) emission limits set by the Environmental Protection Agency. A boiler currently fueled by high-sulphur coal will be converted to use natural gas and also become a back-up energy source.

This will drive a heightened focus in 2016 on improving the efficiency of what will become the one main boiler, and on conservation initiatives to reduce overall energy use and the need for back-up generation.

The high-sulphur coal boiler will be shut prior to Biron's MACT compliance date of January 31, 2017, and its conversion to natural gas will be done that spring. We expect a CO_2 reduction from this source of more than 40 per cent (about 98,000 tonnes).

Longer-term investment in infrastructure to enable increased biomass use in the remaining main boiler – displacing more of the low-sulphur coal that is its other main fuel source – is also being considered.

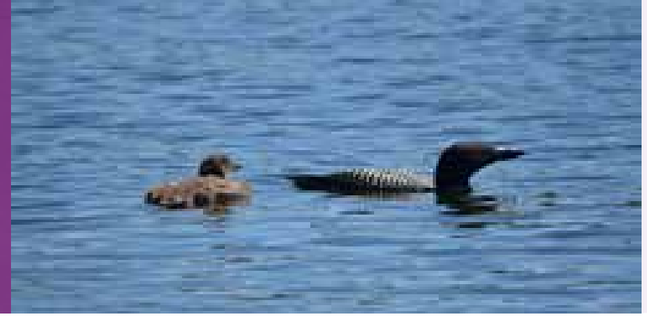
Total Complaints by Site

We track and investigate all complaints received from our operating communities, and use this information to improve our operations and moderate our impacts. We saw a substantial reduction in complaints in 2015, including those relating to all of the major categories of odour, noise and air particulates.

2015	ODOUR	NOISE	PARTICULATE	OTHER*	TOTAL
Port Alberni	0	1	1	0	2
Biron	0	0	0	1	1
Crofton	13	2	3	5	23
Powell River	2	2	1	2	7
Rumford	2	0	1	0	3
Total	17	5	6	8	36
Total 2014	23	22	7	4	56
Change	↓6	↓17	↓1	↑4	↓20

* Includes complaints proven not to be associated with mill operations.

Customers & Products



Loon and her "moult" (juvenile) on Worthley Pond, Maine.
PHOTO BY ROBERT MARTIN (SHIPPER), RUMFORD

Diversified, Quality, Cost-Effective Production

With our acquisition of the Biron and Rumford mills, Catalyst increased its production capacity by close to two-thirds and became the only North American paper manufacturer with facilities distributed across the west, mid-west and eastern regions.

The acquisition extended what was already a broad product line-up, and built on existing competitive strengths in areas such as light-weight products. It significantly enhanced Catalyst's coated and specialty paper production capabilities, and positioned the company to expand and accelerate its new product development efforts.

2015 Issues & Initiatives

Catalyst relaunched its coated paper line-up under a set of brands that leverage strong market awareness of products from Biron and Rumford. We later relaunched an expanded offering of our high-est-value Oxford coated paper, for end uses including product labels and adhesive name tags.

We began formalized efforts to realize complementary sources of revenue outside of our traditional existing businesses. Early commercial successes have been achieved with new products manufactured across a number of Catalyst mills. Sage-designated papers continued to be available across most product lines. Chain-of-custody certified (sustainable fibre), manufactured carbon neutral, and with environmental impacts fully disclosed, Sage products made up about six per cent of our paper sales in 2015. One dollar from every tonne sold was used to support the work of our green partners. With the addition of the two U.S. mills, we also began to offer select products with up to 30 per cent recycled content.

SAGE

Significant effort was made to develop an efficient distribution strategy encompassing our U.S. mills, with a particular focus on enabling Rumford to meet the smaller-volume and just-in-time requirements of coated freesheet markets. New distribution centres were opened in both Chicago and in Massachusetts, with a new warehouse slated for Maine in January 2016 to service the northeast U.S.

Adjustments continued in 2015 to align production capacity with current market demand, including the indefinite curtailment of one paper machine at Rumford due to market conditions in the magazine, catalogue and commercial printing segments.

Product Transportation Efficiency by Mode

	2011	2012	2013	2014	2015
Rail (tonnes/car)	74.0	74.4	75.7	74.2	75.4
Truck (tonnes/truck)	26.3	26.1	25.6	25.4	23.0
Intermodal (tonnes/unit)	23.4	22.1	21.6	21.1	19.1
Container (% utilized)	97.4	98.2	98.1	98.4	97.4

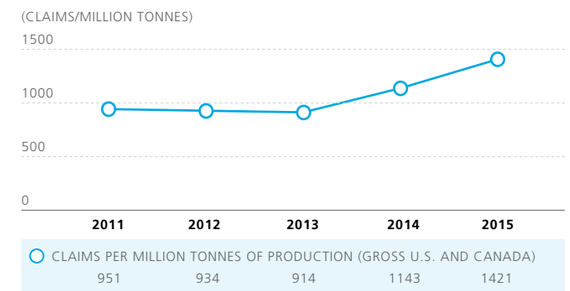
Looking Ahead

Building upon the extensive development work in 2015, Catalyst has invested human and financial resources to further expand its presence in both existing and new markets.

At Rumford, increased focus on enhancing the coated production mix will allow the mill to optimize pulp production, achieving a more favourable balance between internal consumption and market sales. Higher pulp production will, in turn, generate more of the byproduct used to produce certified green energy for external sale.

Our distribution efficiency will be improved through the ongoing transition of more production to the closest-to-the-customer mill, particularly between the Port Alberni and Biron mills, with Port Alberni having expanded its higher-value production capabilities in 2015.

Customer Claims (gross U.S. and Canada)



For 2015, we have adopted a new metric for customer claims than in previous reports. This reflects our new U.S. mills and the integration of performance-tracking procedures within Catalyst. The slight increase in claims in 2015 is due the higher value of and greater technical complexity associated with our new paper grades mix.

HELPING MISSIONARIES TRAVEL LIGHT

In 2015, Catalyst Paper became even more widely circulated around the world – in part due to a new sales opportunity based on one of the oldest and widest-read printed books in existence, the Bible.

The paper is an uncoated mechanical grade from Port Alberni, and these particular Bibles are being used by a missionary group in Brazil. In this context, lightweight and low cost were key criteria, and there was less of a need for the archival qualities of "freesheet" grades (longer-lasting paper containing no lignin).

The Port Alberni paper was therefore an ideal fit, representing one of a number of sales wins secured in 2015 outside traditional end uses.

CATALYST GRANTED EXPEDITED REVIEW OF CVD

On February 8, 2016, Catalyst was granted an Expedited Review of the Countervailing Duty (CVD) Final Order issued by the U.S. Department of Commerce (DOC) in December 2015, which confirmed an "all others" duty rate of 18.85 per cent on the company's exports of supercalendered paper to the U.S. The "all others" rate is based on a weighted average of the final rates assigned to Port Hawkesbury Paper and Resolute Forest Products, the two companies for whom individual investigations were conducted by the DOC. We look forward to a fair, efficient and complete investigation of Catalyst by the DOC.

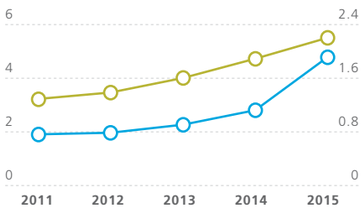
"Our long-standing commitment to responsible products and collaboration with stakeholders differentiates the Catalyst brand and provides a unique halo effect for our customers."

GRAHAM KISSACK,
VICE PRESIDENT, CORPORATE SOCIAL RESPONSIBILITY

The Results: Environmental Data

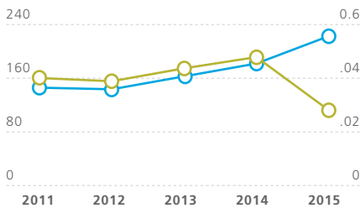
Quality Performance

Total TSS – Total Suspended Solids



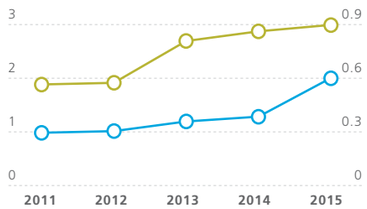
	2011	2012	2013	2014	2015
ABSOLUTE (THOUSAND TONNES/YEAR)	1.9	2.0	2.3	2.8	4.8
INTENSITY (KG/ADT)	1.3	1.4	1.6	1.9	2.2

Total AOX – Adsorable Organic Halides



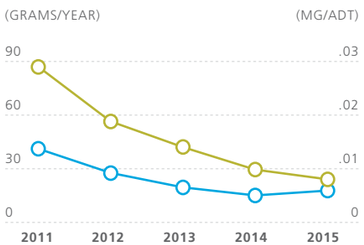
	2011	2012	2013	2014	2015
ABSOLUTE (TONNES/YEAR)	147	145	163	182	223
INTENSITY (KG/ADT)	0.40	0.39	0.44	0.48	0.28

Total BOD – Biochemical Oxygen Demand



	2011	2012	2013	2014	2015
ABSOLUTE (THOUSAND TONNES/YEAR)	1.0	1.0	1.2	1.3	2.0
INTENSITY (KG/ADT)	0.57	0.58	0.81	0.86	0.90

Total Dioxin & Furan Releases[1]

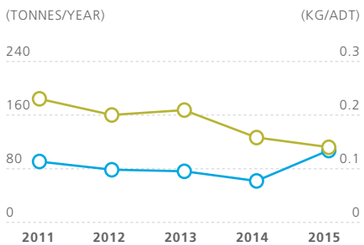


	2011	2012	2013	2014	2015
ABSOLUTE (GRAMS/YEAR)	41.2	27.8	20.2	14.9	17.9
INTENSITY (MG/ADT)	0.029	0.019	0.014	0.010	0.008

Release of dioxin and furan into air, effluent and landfill. Results are heavily influenced by factors such as operating conditions and fuel characteristics and are often highly variable. All operation-specific emissions in 2015 were below a 0.1 ng/m³ TEQ Canadian federal standard applicable to power boilers installed since 2001, even though all Catalyst boilers predate 2001.

ADT – AIR-DRIED TONNES OF PRODUCT
TEQ – DIOXIN TOXICITY EQUIVALENCE

Total TRS – Total Reduced Sulphur[1]



	2011	2012	2013	2014	2015
ABSOLUTE (TONNES/YEAR)	91	78	77	62	107
INTENSITY (KG/ADT)	0.23	0.20	0.21	0.16	0.14

In 2012, Catalyst began selling some electricity externally at Powell River, and in 2015 it began doing so more extensively with the acquisition of the Rumford mill. The total reduced sulphur emissions above are those attributable to paper production. See page 49 for a quantification of the much smaller amount of GHGs and other air emissions attributable specifically to production of power for sale.

[1] All figures based on actual test results; NPRI data (see page 59) may differ because it uses emission factors and includes other sources.

Emissions Attributable to Power Sales

In 2012, Catalyst began selling some electricity externally at Powell River, and in 2015 it began doing so more extensively with the acquisition of the Rumford mill. Most GHG and other air emissions reported elsewhere in this report are those attributable to paper production. The figures below represent the much smaller amount of air emissions attributable specifically to production of power for sale.

	2012	2013	2014	2015
Historical Power Sales (GJ)	429,840	350,172	321,455	**411,469**
Direct GHG Emissions (Scope 1)				
Absolute (THOUSAND TONNES CO_2e/YEAR)	41.2	11.9	11.6	**1.9**
Intensity (KG CO_2e/MWHR)	345	123	130	**18**
Total Air Particulate				
Absolute (TONNES/YEAR)	21.2	6.0	5.8	**1.3**
Intensity (KG/MWHR)	0.18	0.06	0.07	**0.01**
Total Sulphur Oxides				
Absolute (TONNES/YEAR)	70	31	41	**8**
Intensity (KG/MWHR)	0.58	0.32	0.45	**0.07**
Total Nitrogen Oxides				
Absolute (TONNES/YEAR)	307	148	157	**28**
Intensity (KG/MWHR)	2.57	1.52	1.76	**0.27**

The method of allocating GHG and other emissions – between paper production, and production of power for sale – was finalized in 2015. This corrected for the previous over-allocation to paper.

Air Emissions

	2011	2012	2013	2014	2015
Biron					
Total GHGs as kg CO_2e/year (SCOPE 1/DIRECT)	526,779,000	494,488,000	446,986,000	460,202,000	**491,576,000**
Total GHGs as kg CO_2e/adt (SCOPE 1/DIRECT)	1,590	1,460	1,331	1,394	**1,521**
Total GHGs as kg CO_2e/year (SCOPE 2/INDIRECT)	281,444,000	310,846,000	305,510,000	264,255,000	**220,060,000**
Total GHGs as kg CO_2e/adt (SCOPE 2/INDIRECT)	849	918	910	801	**681**
Particulate matter kg/day	806	773	816	1,076	**840**
Particulate matter kg/adt	0.888	0.833	0.887	1.190	**0.948**
Sulphur Oxides kg/day	15,633	15,749	14,735	16,305	**15,915**
Sulphur Oxides kg/adt	17.22	16.97	16.01	18.03	**17.97**
NO_x kg/day	6,681	6,549	5,743	6,078	**6,076**
NO_x kg/adt	7.36	7.06	6.24	6.72	**6.86**
Power Boiler dioxin ng/m³ TEQ	0.00	0.00	0.00	0.00	**0.00**
Crofton					
Total GHGs as kg CO_2e/year (SCOPE 1/DIRECT)	139,466,000	162,266,000	135,050,000	147,052,000	**136,839,000**
Total GHGs as kg CO_2e/adt (SCOPE 1/DIRECT)	205	236	196	206	**196**
Total GHGs as kg CO_2e/year (SCOPE 2/INDIRECT)	10,159,000	9,456,000	9,419,000	12,236,000	**10,298,000**
Total GHGs as kg CO_2e/adt (SCOPE 2/INDIRECT)	15	14	14	17	**16**
Particulate matter kg/day	1,085	1,120	1,180	1,142	**985**
Particulate matter kg/adt	0.54	0.56	0.61	0.56	**0.49**
Sulphur Oxides kg/day [1]	5,935	5,436	6,882	7,651	**4,039**
Sulphur Oxides kg/adt	3.00	2.76	3.65	3.77	**2.03**
NO_x kg/day	3,672	2,503	2,648	2,482	**2,393**
NO_x kg/adt	1.35	1.27	1.34	1.22	**1.20**
TRS kg/day	249	214	212	170	**253**
TRS kg/ADt	0.230	0.200	0.210	0.162	**0.234**
Power Boiler dioxin ng/m³ TEQ	0.03	0.01	0.02	0.03	**0.03**
Ambient TRS % compliance A level 24 hour average	84.5	80.0	84.9	91.7	**93.1**
Ambient PM 2.5 average, ug/m³ [2]	4.5	7.5	4.2	6.9	**7.5**

[1] Reduced sulphur oxide emissions at Crofton resulted from increased measurement and optimization of the operation of the mill's two recovery boilers. Through air redistribution in the boilers, the mill was able to improve the efficiency of its use of sulphur oxide and to reduce releases from these sources.

[2] There are multiple sources of particulates and ambient levels do not necessarily correlate closely.

[3] In 2012, Catalyst began selling some electricity externally at Powell River, and in 2015 it began doing so more extensively with the acquisition of the Rumford mill. The GHG and other emissions reported here are those attributable to paper production (past years' figures have been adjusted). See page 49 for a quantification of the much smaller amount of GHGs and other air emissions attributable specifically to power production for sale.

The method of allocating GHGs and other emissions – between paper production and production of power for sale – was finalized in 2015. This corrected for a previous under-allocation to paper.

ADT – AIR-DRIED TONNES OF PRODUCT
NG – NANOGRAM
PM – PARTICULATE MATTER
TEQ – DIOXIN TOXICITY EQUIVALENCE
UG – MICROGRAM

	2011	2012	2013	2014	2015
Port Alberni					
Total GHGs as kg CO_2e/year (SCOPE 1/DIRECT) [3]	35,490,000	28,850,000	28,727,000	29,981,000	**30,314,000**
Total GHGs as kg CO_2e/adt (SCOPE 1/DIRECT)	114	89	92	90	**96**
Total GHGs as kg CO_2e/year (SCOPE 2/INDIRECT)	6,770,000	6,844,000	6,499,000	8,660,000	**7,664,000**
Total GHGs as kg CO_2e/adt (SCOPE 2/INDIRECT)	22	21	21	26	**24**
Particulate matter kg/day	20	23	21	50	**15**
Particulate matter kg/adt	0.021	0.025	0.024	0.053	**0.016**
Sulphur Oxides kg/day	554	427	512	542	**542**
Sulphur Oxides kg/adt	0.60	0.46	0.59	0.57	**0.57**
NO_x kg/day	647	695	856	975	**890**
NO_x kg/adt	0.75	0.77	0.99	1.07	**1.03**
Power Boiler dioxin ng/m³ TEQ	0.03	0.03	0.05	0.11	**0.07**
Ambient PM 2.5 average, ug/m³ [2]	7.9	6.3	8.1	8.0	**8.7**
Powell River[3]					
Total GHGs as kg CO_2e/year (SCOPE 1/DIRECT)	42,166,000	56,288,000	39,453,000	36,860,000	**42,997,000**
Total GHGs as kg CO_2e/adt (SCOPE 1/DIRECT)	95	126	89	89	**127**
Total GHGs as kg CO_2e/year (SCOPE 2/INDIRECT)	11,239,000	10,497,000	10,765,000	8,530,000	**5,209,000**
Total GHGs as kg CO_2e/adt (SCOPE 2/INDIRECT)	25	23	24	21	**15**
Particulate matter kg/day	13.8	79.5	54.0	50.7	**79.6**
Particulate matter kg/adt	0.01	0.06	0.04	0.04	**0.08**
Sulphur Oxides kg/day	302	261	280	352	**484**
Sulphur Oxides kg/adt	233	213	218	306	**500**
NO_x kg/day	1,590	1,148	1,338	1,365	**1,771**
NO_x kg/adt	1.22	0.94	1.04	1.19	**1.83**
Power Boiler dioxin ng/m³ TEQ	0.05	0.02	0.18	0.01	**0.05**
Ambient TRS % compliance A level 24 hour average	98.9	97.8%	95.1%	91.8%	**98.1%**
Ambient PM 2.5 average, ug/m³ [2]	1.53	1.51	1.77	1.50	**1.82**
Rumford					
Total GHGs as kg CO_2e/year (SCOPE 1/DIRECT) [3]	462,989,000	429,265,000	459,161,000	461,749,000	**497,157,000**
Total GHGs as kg CO_2e/adt (SCOPE 1/DIRECT)	800	702	768	816	**928**
Total GHGs as kg CO_2e/year (SCOPE 2/INDIRECT)	5,151,000	14,682,000	18,178,000	18,108,000	**9,568,000**
Total GHGs as kg CO_2e/adt (SCOPE 2/INDIRECT)	9	24	30	32	**18**
Particulate matter kg/day	466	507	404	394	**370**
Particulate matter kg/adt	0.29	0.30	0.25	0.25	**0.25**
Sulphur Oxides kg/day	1,629	1,791	1,892	2,049	**2,022**
Sulphur Oxides kg/adt	1.03	1.07	1.16	1.32	**1.38**
NO_x kg/day	3,874	4,104	4,027	4,136	**4,130**
NO_x kg/adt	2.44	2.45	2.46	2.67	**2.81**
TRS kg/day	55	57	43	40	**41**
TRS kg/ADt	0.049	0.046	0.036	0.034	**0.040**

Wastewater

	2011	2012	2013	2014	2015
Biron					
TSS kg/day	964	756	735	704	**981**
TSS kg/adt	1.1	0.8	0.8	0.8	**1.1**
BOD kg/day	561	372	476	350	**696**
BOD kg/adt	0.62	0.40	0.52	0.39	**0.79**
Trout toxicity % compliance	100	100	100	100	**100**
Crofton					
TSS kg/day [1]	2,889	3,045	3,541	4,995	**6,652**
TSS kg/adt	1.6	1.7	1.9	2.6	**3.4**
BOD kg/day	1,726	1,464	1,850	2,105	**2,269**
BOD kg/adt	0.92	0.78	0.98	1.07	**1.17**
AOX kg/day	403	396	446	499	**353**
AOX kg/adt pulp	0.33	0.32	0.41	0.48	**0.34**
2378TCDD ppq	ND	ND	ND	ND	**ND**
2378TCDF ppq	ND	ND	ND	ND	**ND**
Trout toxicity % compliance	94	96	95	100	**100**
Port Alberni					
TSS kg/day [2]	412	693	905	840	**1,310**
TSS kg/adt	0.5	0.8	1.1	0.9	**1.5**
BOD kg/day	280	410	410	400	**490**
BOD kg/adt	0.33	0.46	0.48	0.44	**0.56**
Trout toxicity % compliance	100	100	100	100	**100**
Powell River					
TSS kg/day	1,885	1,822	1,909	1,801	**1,693**
TSS kg/adt	1.5	1.5	1.6	1.6	**1.1**
BOD kg/day	705	786	956	949	**908**
BOD kg/adt	0.57	0.63	0.79	0.83	**0.61**
Trout toxicity % compliance	94	98	98	93	**100**
Rumford					
TSS kg/day	1,535	1,963	2,370	2,782	**2,387**
TSS kg/adt	1.0	1.2	1.5	1.8	**1.6**
BOD kg/day	683	923	1,085	1,707	**1,069**
BOD kg/adt	0.43	0.55	0.66	1.10	**0.72**
AOX kg/day	411	431	368	383	**259**
AOX kg/adt pulp	0.26	0.26	0.22	0.25	**0.22**

ADT – AIR-DRIED TONNES OF PRODUCT

ND – NON-DETECTABLE (TEST RESULT BELOW TWO PARTS PER QUADRILLION)

2378TCDD, 2378TCDF – SPECIFIC DIOXIN AND FURAN CONGENERS IN WASTE WATER

Solid Waste

Solid Waste to Landfill (tonnes)

	2011	2012	2013	2014	2015
Biron	17,001	16,426	17,769	20,031	**23,116**
Crofton	14,139	16,305	16,991	15,673	**21,850**
Port Alberni	15,388	14,145	13,968	17,797	**19,180**
Powell River	22,846	27,137	28,557	29,494	**26,087**
Rumford [3]	35,315	32,032	30,551	49,579	**51,998**

[1] Increased total suspended solids in effluent at Crofton were largely related to increased use of salt water during a water shortage (see page 39). Higher saline content resulted in more suspended material in the form of microbes used in effluent treatment processes. TSS levels remained within permit limits, and returned to more typical levels once more freshwater was available for use.

[2] TSS levels, while remaining well within permit limits, were impacted by two periods of time during the year when the mill operated with one of two secondary clarifiers out of service for inspection and maintenance.

[3] Increased solid waste from Rumford reflected in part a drop in demand from the end-user for fly ash used as landfill stabilizer.

Total Waste Generation

	TONNES GENERATED	TONNES LANDFILLED	TONNES INCINERATED FOR ENERGY GENERATION	TONNES FOR OTHER BENEFICIAL REUSE
Flyash	98,036	73,961	0	24,075
Effluent treatment sludges	93,334	13,150	70,088	10,096
Grate ash & sand	37,341	37,341	0	0
Waste lime, dregs & grits	13,883	13,883	0	0
Other	11,295	3,898	0	7,397
Scrap metal	1,954	0	0	1,954
Total	**255,843**	**142,232 (56%)**	**70,088 (27%)**	**43,522 (17%)**

In total, 44 per cent of the solid waste generated at Catalyst operating facilities in 2015 was either incinerated for energy generation, or recycled for beneficial reuse (see, for example, page 14).

Water & Energy Use

Biron

	2011	2012	2013	2014	2015
Process water use m³/adt	26	27	26	30	**28**
Fuel energy usage GJ	5,718,573	5,541,153	5,295,434	5,188,244	**5,831,543**
Fuel energy intensity GJ/adt	17.26	16.36	15.77	15.72	**18.04**
Electricity usage MWh	750,000	753,179	736,672	718,143	**736,872**
Electricity intensity MWh/adt	2.26	2.22	2.19	2.18	**2.28**
Total energy usage excluding self-generated electricity GJ	7,389,992	7,304,476	7,062,602	6,796,263	**7,505,136**
Total energy intensity excluding self-generated electricity GJ/adt	22.30	21.57	21.03	20.59	**23.21**
Renewable energy (%)	6	8	11	7	**12**

Crofton

	2011	2012	2013	2014	2015
Process water use m³/adt [1]	79	76	74	74	**62**
Fuel energy usage GJ	17,904,394	18,216,179	17,526,544	17,725,452	**18,505,887**
Fuel energy intensity GJ/adt	26.19	26.45	25.45	24.77	**26.54**
Electricity usage MWh	1,349,631	1,341,168	1,349,254	1,333,768	**1,302,701**
Electricity intensity MWh/adt	1.98	1.95	1.96	1.86	**1.87**
Total energy usage excluding self-generated electricity GJ	21,967,887	21,998,426	21,294,113	21,396,372	**22,082,152**
Total energy intensity excluding self-generated electricity GJ/adt	32.22	31.94	30.92	29.90	**31.67**
Renewable energy (%)	87	86	88	88	**89**

Port Alberni

	2011	2012	2013	2014	2015
Process water use m³/adt	69	66	76	76	**84**
Fuel energy usage GJ	4,796,691	4,654,171	4,625,290	4,788,549	**4,865,825**
Fuel energy intensity GJ/adt	15.34	14.35	14.80	14.38	**15.47**
Electricity usage MWh	823,184	837,768	800,198	802,553	**771,567**
Electricity intensity MWh/adt	2.63	2.58	2.56	2.41	**2.45**
Total energy usage excluding self-generated electricity GJ	7,504,517	7,391,672	7,224,886	7,386,680	**7,373,999**
Total energy intensity excluding self-generated electricity GJ/adt	24.00	22.80	23.11	22.18	**23.44**
Renewable energy (%)	90	91	91	92	**91**

[1] In 2015, we began tracking both process and cooling water use separately, and is consistent with our other operations.

Powell River

	2011	2012	2013	2014	2015
Process water use m³/adt [1]	75	72	73	77	**86**
Fuel energy usage GJ	6,642,139	8,968,754	7,720,566	7,402,408	**8,181,005**
Fuel energy intensity GJ/adt	14.99	20.08	17.41	17.84	**24.08**
Electricity usage MWh	1,386,901	1,371,250	1,378,152	1,359,564	**1,162,405**
Electricity intensity MWh/adt	3.13	3.07	3.11	3.28	**3.42**
Total energy usage excluding self-generated electricity GJ	11,137,715	13,167,571	12,026,436	11,585,370	**11,597,394**
Total energy intensity excluding self-generated electricity GJ/adt	25.13	29.48	27.12	27.91	**34.13**
Renewable energy (%)	92	86	93	92	**93**

Rumford

	2011	2012	2013	2014	2015
Process water use m³/adt	69	68	69	75	**77**
Fuel energy usage GJ	16,571,138	17,220,068	17,355,749	17,158,649	**16,267,011**
Fuel energy intensity GJ/adt	28.64	28.16	29.03	30.32	**30.30**
Electricity usage MWh	723,416	742,394	740,332	732,732	**676,414**
Electricity intensity MWh/adt	1.25	1.21	1.24	1.29	**1.28**
Total energy usage excluding self-generated electricity GJ	16,626,819	17,378,759	17,552,230	14,748,349	**16,580,958**
Total energy intensity excluding self-generated electricity GJ/adt	28.74	28.42	29.36	26.06	**30.90**
Renewable energy (%)	65	68	65	64	**62**

[1] Increased water use at Powell River reflected in part the impact of the closure of a paper machine which was first curtailed on October 31, 2014 (i.e., production dropped by a larger proportion than did water use).

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

ADT – AIR-DRIED TONNES OF PRODUCT
GJ – GIGAJOULES
MWH – MEGAWATT-HOURS

Fibre Use by Mill

Biron

	2011	2012	2013	2014	2015
Fibre use by type – tonnes					
Wood chips	458	1,879	1,177	183	**583**
Pulp logs	192,857	195,470	188,204	182,919	**186,420**
Purchased virgin pulp	74,510	83,067	81,432	83,468	**76,008**
Purchased recycled pulp (recovered paper)	23,706	22,278	12,491	13,100	**3,795**
Chain of Custody Fibre Certification / Audited Fibre					
FSC certified %	22	23	23	23	**36**
PEFC/SFI certified (incl. ATF) %	5	4	8	7	**8**
Master Logger	9	5	7	6	**12**
Total fibre (t)	292,000	303,000	283,000	280,000	**267,000**
Fibre from private lands %	**88**	**85**	**86**	**88**	**92**

Crofton Paper

	2011	2012	2013	2014	2015
Fibre use by type – tonnes					
Wood chips	244,000	280,000	298,000	286,000	**273,000**
Pulp logs	41,000	11,000	13,000	19,000	**23,000**
Chain of Custody Fibre Certification / Audited Fibre					
FSC certified %	1.52	0.00	0.03	0.00	**0.00**
PEFC/SFI certified %	68	47	36	43	**36**
Total fibre (t)	285,000	291,000	311,000	305,000	**296,000**
Fibre from private lands %	**15**	**15**	**15**	**15**	**15**

Crofton Pulp

	2011	2012	2013	2014	2015
Fibre use by type – tonnes					
Wood chips	737,000	770,000	725,000	765,000	**791,000**
Pulp logs	97,000	91,000	69,000	70,000	**56,000**
Chain of Custody Fibre Certification / Audited Fibre					
FSC certified %	1.86	0.79	0.25	0.00	**0.00**
PEFC/SFI certified (incl. ATF) %	57	49	51	50	**47**
Total fibre (t)	834,000	861,000	794,000	835,000	**847,000**
Fibre from private lands %	**15**	**15**	**15**	**15**	**15**

"Fibre from private lands" for Canadian operations are estimates, and improved metrics are being explored.

Port Alberni

	2011	2012	2013	2014	2015
Fibre use by type – tonnes					
Wood chips	97,000	97,000	115,000	127,000	**108,000**
Pulp logs	107,000	118,000	88,000	85,000	**90,000**
Purchased virgin pulp	7,884	9,207	13,294	13,216	**14,711**
Chain of Custody Fibre Certification / Audited Fibre					
FSC certified %	7.02	4.75	8.10	0.00	**5.43**
PEFC/SFI certified %	68	70	59	64	**71**
Total fibre (t)	212,000	224,000	216,000	225,000	**213,000**
Fibre from private lands %	**15**	**15**	**15**	**15**	**15**

Powell River

	2011	2012	2013	2014	2015
Fibre use by type – tonnes					
Wood chips	357,000	362,000	364,000	347,000	**302,000**
Chain of Custody Fibre Certification / Audited Fibre					
FSC certified %	0.00	2.18	0.00	0.00	**0.00**
PEFC/SFI certified (incl. ATF) %	74	79	81	67	**66**
Total fibre (t)	357,000	362,000	364,000	347,000	**302,000**
Fibre from private lands %	**15**	**15**	**15**	**15**	**15**

Rumford

	2011	2012	2013	2014	2015
Fibre use by type – tonnes					
Wood chips	190,207	183,123	209,067	246,286	**154,229**
Pulp logs	670,530	759,453	724,645	652,245	**707,752**
Purchased virgin pulp	5,022	344	649	355	**6,512**
Purchased recycled pulp (recovered paper)	3,508	4,080	3,618	3,996	**3,396**
Chain of Custody Fibre Certification / Audited Fibre					
FSC certified %	28	30	28	27	**30**
PEFC/SFI certified (incl. ATF) %	3	1	1	2	**3**
Master Logger	4	5	15	18	**16**
Total fibre (t)	869,267	947,000	937,979	902,882	**871,889**
Fibre from private lands %	**99.7**	**100.0**	**99.8**	**99.6**	**99.3**

Key Materials & Production

Total Key Materials Used as Tonnes (corporate wide)

	2011	2012	2013	2014	2015
Water	142,416,387	159,570,826	142,826,856	153,194,662	**271,367,951**
Wood chips and pulp logs	1,652,199	1,673,561	1,663,248	1,701,108	**3,156,934**
Biofuel ("waste bark")	680,023	748,813	744,787	741,249	**938,322**
Fossil Fuels	407,176	309,339	61,307	64,833	**460,374**
Calcium Carbonate (GCC & PCC)	123,651	117,457	109,927	110,589	**266,436**
Clay	75,307	75,289	63,341	61,442	**188,327**
Purchased pulps	7,884	9,207	13,294	13,759	**104,958**
Oxygen	57,832	55,919	57,704	57,143	**59,491**
Limestone/Quicklime	2,504	5,963	4,857	2,544	**46,657**
Sodium Hydroxide	30,803	30,126	27,784	27,769	**39,808**
Sodium Chlorate	18,425	17,552	17,843	19,657	**37,377**
Starch	10,566	10,993	8,998	9,152	**27,593**
Hydrogen Peroxide	17,911	17,927	14,577	15,997	**18,383**
Sulphuric Acid	15,593	15,611	13,490	13,791	**14,688**
Latex	4,640	4,306	4,367	3,790	**12,452**
Silicate	11,217	10,533	6,757	7,349	**8,206**
Sulphur Dioxide	8,589	8,691	8,464	8,510	**7,744**
Urea	6,441	6,256	5,972	6,301	**5,933**

Water use figures in this table include treated effluent, as well as discharges of cooling and storm water. Consistent with standard industry practice, water use as shown in the key facts and figures (and used to calculate water use intensity) includes only treated effluent.

Fossil fuels are also reported as gigajoules of heating value on page 34.

Saleable Production by Mill as Tonnes

	2011	2012	2013	2014	2015
Biron	331,372	338,716	335,845	330,108	**323,294**
Crofton	681,910	688,722	688,774	715,542	**697,243**
Port Alberni	312,675	324,231	312,594	333,040	**314,608**
Powell River	443,242	446,732	443,466	415,032	**339,771**
Rumford	578,538	611,520	597,830	565,868	**537,013**

These figures quantify the operating-platform and production-level changes that impact environmental performance, particularly as measured in terms of absolute emissions.

Emissions

2014 Reported NPRI and TRI Emissions (not including speciated PAHs and Part 5 VOCs)

	2010	2011	2012	2013	2014
Tonnes					
Sulphur Dioxide (SO_2)	1941	2337	2199	2986	**3173**
Carbon Monoxide	2490	2846	3133	2399	**2756**
Nitrogen Oxides (NO_x)	1652	1764	1875	1849	**1908**
Hydrochloric Acid	917	894	866	926	**906**
Volatile Organic Compounds (VOCs)	876	977	737	732	**751**
Nitrate Ion	283	375	661	666	**623**
Total Particulate Matter	499	401	475	457	**467**
PM 10	429	337	409	393	**396**
Methanol	488	536	376	374	**387**
Manganese	176	217	210	238	**309**
Phosphorus, Total	257	363	325	360	**290**
PM 2.5	305	238	293	278	**283**
Total Reduced Sulphur	173	188	146	192	**174**
Ammonia	98	119	131	121	**153**
Chlorine Dioxide	108	86	79	89	**94**
Hydrogen Sulphide	77	76	76	82	**79**
Zinc	43	60	58	41	**49**
Phenol	18	29	29	29	**21**
Acetaldehyde	15	29	17	17	**18**
Sulphuric Acid	38	37	14	14	**14**
Carbonyl Sulphide	—	10	10	10	**11**
Kilograms					
Lead	2819	3028	2236	1764	**1752**
Arsenic	707	864	2221	1486	**1259**
Hexavalent chromium compounds	234	501	318	284	**277**
Sum of PAHs (17)	245	864	307	242	**256**
Cadmium	104	213	149	179	**206**
Mercury	23	129	13	13	**16**
Grams					
HCB	204	31	512	288	**300**
Dioxins & Furans (TEQ)	28	40	22	21	**15**

Legislation in both Canada and the U.S. requires facilities such as Catalyst's to annually report releases of any of a large number of substances if they exceed defined thresholds, including releases to air, water and land, and volumes sent for disposal or recycling. Reported volumes are based on actual measurement or estimates arrived at using defensible methodologies.

This information is compiled by Environment Canada in the National Pollutant Release Inventory (NPRI), and by the U.S. Environmental Protection Agency in the Toxics Release Inventory (TRI), and is available via www.ec.gc.ca/inrp-npri and www.epa.gov/tri.

The table above shows the combined total of all releases reported to the NPRI and TRI for all of Catalyst's operations.

Since releases are reported in the spring for the previous calendar year, 2015 data were not yet available when this report was prepared.

Data are not included [–] in instances where reporting was not required by the regulator. Speciated PAHs, while reported individually to Environment Canada, are reflected in the table above as part of the "Sum of PAHs."

Regulatory Compliance

In total, 52 regulatory events occurred at Catalyst mills in 2015. These involved either exceeding a permit limit; reporting accidental releases due to the source, amount or nature of the material involved; and disclosing procedural or other administrative errors with which no known exceedances or spills are associated. All such incidents are promptly reported and their causes thoroughly assessed. They are also classified by impact, based on factors including risks to humans and of environmental damage.

During 2015, Catalyst commissioned independent audits carried out every three years at all its mills and aimed at assessing legal compliance and due diligence with respect to operations and equipment. This is a key step in continually improving our ability to meet compliance obligations. Assessment of priority action items was underway at year end.

Biron (4 events)

PERMIT NON-COMPLIANCES

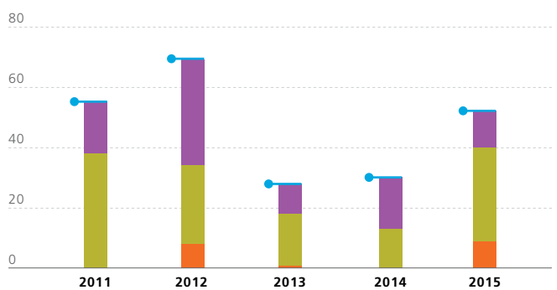
One boiler had a six-minute opacity spike (visible air emissions) resulting from an operational error involving excess feeding of wet biomass into the boiler to reduce carbon monoxide emissions.

OTHER ISSUES

Reportable Release: 30 gallons of hydraulic fluid released to ground, caused by a small rupture in a pressurised hose, which was not immediately visible due to being positioned under a vehicle.

Administrative Errors: An eight-day delay in performance of a required audit of continuous emission monitors on mill boilers; and a failure to record pressure differentials on two bag houses within the starch conveying system as required by a new Title V condition issued in June 2015.

Regulatory Compliance Events



	2011	2012	2013	2014	2015
TOTAL	55	65	28	30	52
WATER	17	35	10	17	12
AIR	38	26	17	13	31
LAND	0	4	1	0	9

Crofton (20 events)

PERMIT NON-COMPLIANCES

There was one permit non-compliance for each quarter of the year (four total), relating to chlorine dioxide levels in emissions from the mill's bleach plant. See discussion page 41.

OTHER ISSUES

Reportable Releases: About 100 m^3 of storm water released to the ocean when a pump failed during heavy rainfall; about 14 m^3 of untreated bleach plant effluent released due to a leak in a spill tank located in a foreshore area; five kg of calcium carbonate released to the ocean due to poor drain hose placement; and two reportable releases of non-ozone depleting refrigerant, totaling 83.5 kg. There has been no regulatory intervention based on these events.

Administrative Errors: Eight occasions when ambient air monitoring equipment, primarily for total reduced sulphur, failed audits (two new TRS sensors have been installed); one relating to a missed 24-hour composite sample that prevented the total suspended solids test from being conducted; one relating to a missed quarterly test of total reduced sulphur; and one relating to late submission of a landfill report.

Port Alberni (4 events)

There were four reportable releases of non-ozone depleting refrigerant, totaling 65.2 kg.

Powell River (8 events)

PERMIT NON-COMPLIANCES

The Biological Oxygen Demand (BOD) level in the mill's effluent exceeded the limit on one occasion (31 vs. 26 mg/L). This BOD limit is the most stringent in British Columbia.

Temperature in a cooling water outfall exceeded the limit over a one-minute period (52 vs. 40ºC).

On two occasions, the pH level (water acidity) at outfalls releasing cooling and storm water exceeded the limit for a two-minute period.

OTHER ISSUES

There were three reportable releases of non-ozone depleting refrigerant, totaling 44.4 kg.

Administrative Error: An auto-sampler failed to collect a composite sample at an outfall releasing cooling and storm water, resulting in a missed test for total suspended solids.

2015 Events

		IMPACTED ENVIRONMENT			SIGNIFICANCE [1]		
	TOTAL	WATER	AIR	LAND	LOW	MED	HIGH
Permit Non-Compliances	17	6	11	0	11	6	0
Reportable Releases	20	3	9	8	16	4	0
Administrative Errors	15	3	11	1	13	2	0

Events by Operation

	TOTAL*	ALBERNI	BIRON	CROFTON	ELK FALLS	POWELL	RUMFORD	SNOWFLAKE
2015	52	4	4	20	na	8	16	na
2014	30	3	2	10	na	17	26	na
2013	28	6	0	12	na	10	16	na
2012	65	1	4	19	11	26	8	8
2011	55	0	5	28	2	12	13	13

* Totals include only Catalyst-owned facilities in the year in question (excluding Biron and Rumford prior to 2015)

[1] **Low significance:** Poses no threat to people or environment.
Medium significance: Poses a limited threat to people or environment.
High significance: Poses material threat to people or environment.

Regulatory Compliance continued

Rumford (19 events)

PERMIT NON-COMPLIANCES:

Total suspended solids (TSS) from the effluent treatment plant exceeded the daily-maximum limit on one occasion (56,366 vs. 50,000 lb), during a period of high TSS loading compounded by a series of equipment outages.

On five occasions the six-minute average opacity (visible air emissions) from the boilers was above the limit, occurring during a shift among fuel sources.

There were two incidents, one 47 minutes and one 42 minutes in duration, during which a mix of odourous non-condensable gases were vented, once due to equipment failure and once due to an interruption in steam supply.

OTHER ISSUES

Reportable Releases: Six occasions when liquid or foam was released to the ground from a manhole at the mill's landfill site due to improper sealing and other capacity issues (collection infrastructure improvements have been completed) and a leak of leachate collected from the mill's landfill site, occurring at the spot of an old repair on the transport pipe (the section of pipe was replaced). A further incident involved a release into the river of cooling water (for a period of 47 minutes) that had been contaminated with highly diluted paper fibre (a permanent diversion has been made to prevent recurrence).

Administrative Error: Quarterly storm water outfall maintenance items were not addressed in a timely manner.

EFFLUENT RELEASES CAUSE NO HARM TO ENVIRONMENT

Catalyst pled guilty in provincial court in 2015 to three charges under Canada's *Fisheries Act*. This is Catalyst's first conviction for offences under an environmental law, and the company paid a fine of $200,000, most of which has been directed to the federal government's Environmental Damages Fund.

Two convictions were for releases of substances (consisting of cooling water and wood fibre) into fish-bearing waters. These releases occurred during unforeseen and unexpected mill power outages in 2012. The third conviction resulted from a procedural failure to collect a proper sample when a minor release occurred in 2014, also at the time of a power failure.

Catalyst invested more than $2 million in equipment upgrades and other precautions in direct response to the 2012 incidents, primarily to install diesel generators as an additional back-up power source. There was no evidence of environmental harm resulting from any of the releases.

Advancing Transparency & Communicating Progress

Global Reporting Initiative (GRI) Index

Report Section	Pages	STRATEGY & ANALYSIS G4-1	ORG PROFILE G4-3 TO G4-16	IDENTIFIED MATERIAL ASPECTS & BOUNDARIES G4-17 TO G4-23	STAKEHOLDER ENGAGEMENT G4-24 TO G4-27	REPORT PROFILE G4-28 TO G4-33	GOVERNANCE G4-34	ETHICS & INTEGRITY G4-56	ECONOMIC	ENVIRONMENTAL	SOCIAL
Catalyst at a Glance	INSIDE COVER	●	●	●							
About this Report	INSIDE COVER		●	●		●					
Facts & Figures	1								●	●	●
President & CEO's Message	2	●						●			
Case Studies	6	●	●		●			●	●	●	●
Stakeholders	18		●		●						
Governance	19						●	●			
Products	20		●						●	●	
Partnerships	21		●		●						
Workforce Profile	22		●		●						●
Health & Safety	24				●						●
Community & Social Engagement	26				●				●	●	●
Fibre & Forest Management	30		●		●				●	●	●
Energy & Carbon	34		●		●				●	●	
Water Use	38				●					●	
Solid Wastes & Air Emissions	40		●		●				●	●	
Customers & Products	44		●		●				●		
Environmental Data	48									●	
Regulatory Compliance	60									●	
GRI Index Online		●	●	●	●	●	●	●	●	●	●

A detailed index encompassing Catalyst's full disclosure process and citing specific GRI indicators is available at: *www.catalystpaper.com/investors/sustainability-reports*. We self-declare our disclosure to be in accordance with GR4 Core guidelines.

After all, the ordinary hero hiding in each of us…

… is often the most powerful catalyst…

… for change.

TATE TAYLOR
AMERICAN SCREENWRITER AND DIRECTOR

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Our 2015 Annual Report is available online in the Investor Relations section of our website.

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Catalyst

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Raw Fibre (g)	207
% certified sources	100
Filler (g)	78
Water (L)	18
Work (person secs)	2.0
Energy (Cal)	1,241
% renewable	87
Emissions	
Greenhouse Gas (g)	46*
Air Particulate (mg)	11
Effluent BOD (mg)	124
Solid Waste (cm^3)	18

*Offset to zero

PRODUCTION NOTES

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