

wausauPAPER®
K e y s t o n e

sustainability

QUESTION & ANSWER GUIDE





The art director – a key influencer – makes creative choices every day that incorporate environmentally preferable solutions.

The environmental executive – the ultimate steward – seeks ways to advance a company's eco-impact.

Viewed through Wausau Paper's sustainability lens, influencers and stewards come together to inspire action.

No matter what your perspective is, you'll find valuable information in this Q&A guide to help guide your journey toward sustainability.



perspective
wausauPAPER®

How much impact does recycled paper really have?

A single ton of paper made with 30% recycled post-consumer fiber saves 3 cubic yards of landfill space, 7 trees, 3,000 gallons of water and more than 4,000 BTUs of energy.¹

Producing recycled paper causes 74% less air pollution and 35% less water pollution and creates five times the number of jobs as producing virgin paper does.²

¹ Source: Office of the Federal Environmental Executive: ofee.gov

² Source: Dartmouth Sustainability Initiative, 2007

What does Wausau Paper® mean by a “Vision for Sustainability”?

Sustainability starts with vision...seeing things in a new way...looking at business decisions with a fresh perspective – through the lens of sustainability.

How much paper do businesses actually use?

Each year, American businesses throw away enough paper to construct a 12-foot-high wall from New York to Los Angeles. Every day, businesses use enough paper to circle the Earth 20 times.¹ When viewed with that kind of perspective, it's clear that we need to do all we can to reduce the impact of paper on the environment. That's where Wausau Paper's environmental commitment comes in.

¹ Source: New York Sierra Club: newyork.sierraclub.org

What certification programs does Wausau Paper® participate in?

In its commitment to offer one of the largest selections of environmentally responsible products of any North American paper producer, Wausau Paper® participates in both the Forest Stewardship Council (FSC) and Green Seal® certification programs.

What does the FSC stand for?

FSC is an acronym for the Forest Stewardship Council, an international non-profit organization dedicated to responsible management of the world's forests.

FSC “chain of custody” certifications validate that every step of a product's manufacturing process – from the harvesting of raw materials to production of the final product – follows stringent FSC policies for responsible forest management.

For more information, visit fsc.org.



The FSC logo identifies products from well-managed forests.

Wausau Paper® certification number: SW-COC-1724

© 1996 Forest Stewardship Council A.C.

What is the Green Seal® organization and what does it do?

Green Seal® is an independent, non-profit organization dedicated to identifying, certifying and promoting environmentally responsible products with consideration of their entire life cycle. This includes the raw materials, manufacturing process, packaging and transportation, product performance, product use and disposal or recycling.

Green Seal® certification verifies that the paper bearing its logo has at least 30% recycled post-consumer fiber and passes Green Seal's rigorous standards.

For more information, visit greenseal.org.

Why do people look for the FSC and Green Seal® logos?

The FSC and Green Seal® logos are an assurance that the papers purchased meet the highest degree of environmental excellence.



Look for the Green Seal® to identify Wausau Paper® products that are Green Seal® certified. Green Seal is a registered trademark of Green Seal, Inc., Washington, D.C., and is used by permission.

"It is important not to wait for others to act, but instead to lead the sustainable design revolution. As designers are both makers and consumers, our power to incite change is compelling."

From "What Is Sustainable Design?" by Eric Benson,
Design Philosophy Politics e-zine

How can I calculate the savings attributable to using recycled paper?

Wausau Paper® offers an Eco-Calculator at wpprintingandwriting.com/environment/calculator.aspx. This quick and convenient online tool helps you estimate the impact of choosing an environmentally responsible paper.

Besides offering recycled paper, what else is Wausau Paper® doing to contribute to a sustainable environment?

In addition to supporting our customers with one of the largest selections of environmentally responsible products of any North American paper producer, Wausau Paper® is committed to sustainable business practices and living green throughout our business. Some examples of our journey toward sustainability include:

- **Use of Elemental Chlorine-Free (ECF) Pulp**

All of our Printing & Writing paper grades are manufactured with elemental chlorine-free pulp. Utilizing ECF pulp helps Wausau Paper® achieve pollution prevention and virtually eliminates the release of dioxin into water sources. Recycled post-consumer fiber is processed chlorine-free.
- **Water Conservation**

The water management programs Wausau Paper® has put in place are designed to maintain the integrity of potable and process water systems and minimize overall consumption of water. Each Wausau Paper® Printing & Writing mill has its own wastewater treatment facility for purification of process water prior to discharge from the mill.
- **Air Quality Improvement Efforts**

All emissions are monitored, evaluated and controlled for minimum environmental impact.

- **Waste Minimization**

Each Wausau Paper® facility minimizes emissions and waste by adhering to the reduce–reuse–recycle–recover philosophy. Management teams are in place to direct each area of the process, and we strive for continuous improvement. Each facility has environmental permits, and we work diligently to comply with the spirit as well as the letter of the law by protecting the environment surrounding our facilities.

- **Energy Management**

Energy conservation and reduction is a major focus for Wausau Paper®. Our mills have energy taskforce teams designed to manage and minimize energy use. Our mill in Brainerd, Minn., has a hydroelectric dam that produces approximately 30% of its electrical energy needs from this renewable energy source.

- **Sustainable Forestry Practices**

Wausau Paper® participates with Wisconsin state government agencies in a program called “The Green Guarantee.” The Green Guarantee is a commitment to practicing and promoting sustainable forestry. Sustainable forestry means meeting the needs of the present without compromising the ability of future generations to meet their own needs. It combines reforestation and the management of growing, nurturing and harvesting trees for useful purposes. Sustainable forestry also entails conservation of soil, air and water quality, wildlife and fish habitat and aesthetics. As a member of The Green Guarantee program,

Wausau Paper® commits to the reforestation of 100% of all lands within five years of completion of harvest. A majority of the land is reforested within the first two years.



perspective
steward

Is it true that more companies are concerned with sustainability than ever before?

Yes. Companies of all sizes are under increasing pressure to reduce their carbon footprint and to buy and produce ecologically sustainable products.

This perspective has risen all the way to the top of the business world, with retail giant Wal-Mart recently announcing its commitment to reduce the company's carbon footprint by 20% in seven years.

What is green purchasing?

Green purchasing includes the acquisition of recycled-content products, environmentally preferable products and services, bio-based products, energy- and water-efficient products, alternate-fuel vehicles, products using renewable energy, and alternatives to hazardous or toxic chemicals.


Source: Office of the Federal Environmental Executive: ofee.gov/gp/gp.asp

What is the role of the chief sustainability officer or environmental executive of an organization?

These "corporate stewards" are responsible for leading their companies forward through strong environmental initiatives. They want to protect and enhance the value of their company and/or brands by doing what's right and getting recognized for it. They want sustainable business partners that can help them achieve their goals.

Is this a new position?

This role, in its official title, is relatively new to most organizations. But for decades, many companies have had an ad hoc committee or a single person passionate about bringing sustainability issues to the larger organization.



"...increased attention to environmental responsibility can be an opportunity for designers to be seen as critical advisors to corporations on how to reduce their negative impacts without compromising the imperative for product differentiation and promotion through design and printing."

From *Print Design and Environmental Responsibility*, a publication of AIGA: the professional association for design

What's the greatest challenge in sustainable printing today?

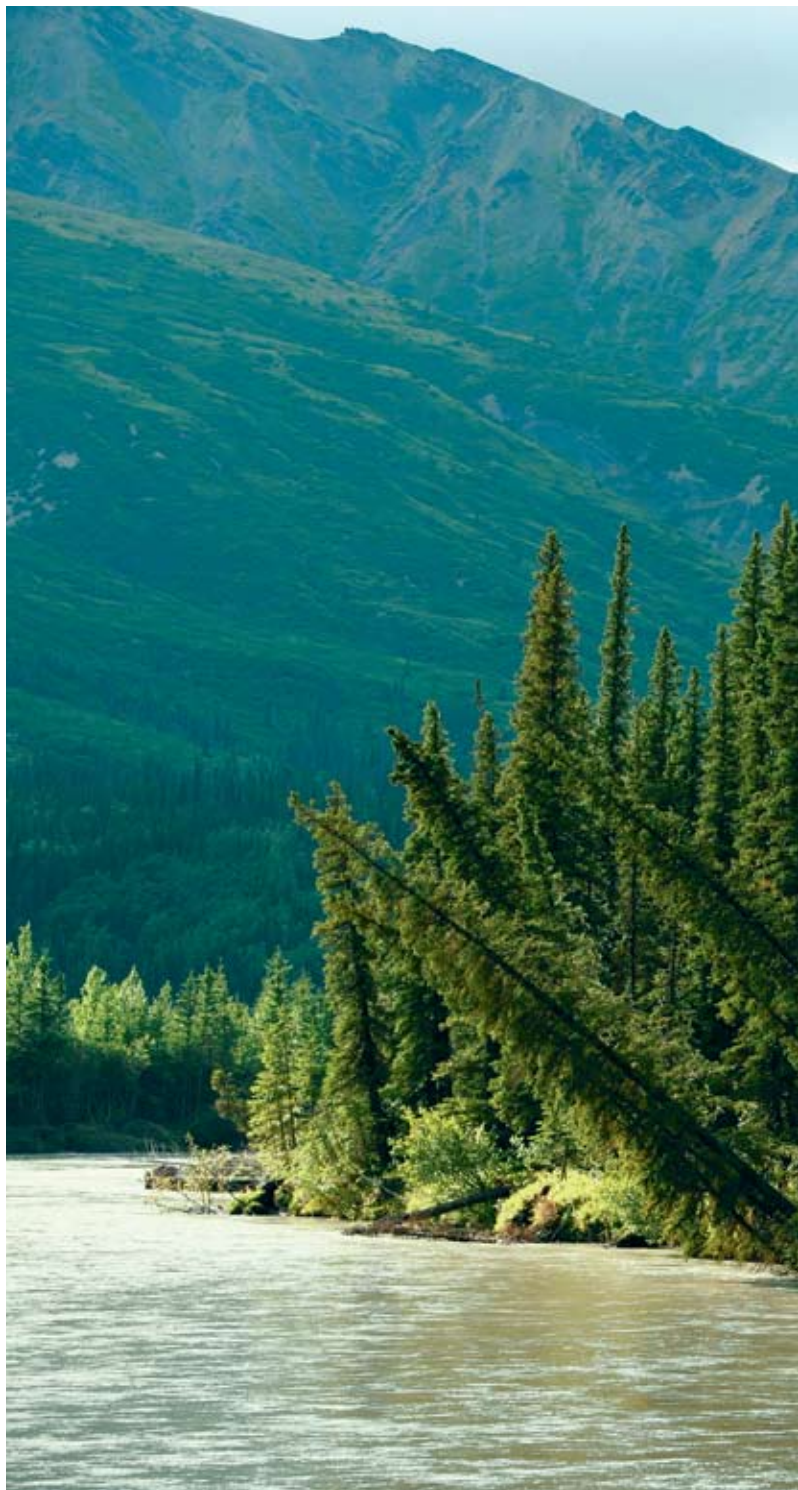
Although corporate awareness of sustainability issues and solutions is growing, a company's procurement group may still be skeptical about the economic and ecologic value of using recycled papers. Fortunately, there is a strong business case to be made for using environmentally friendly papers in many business-to-business and business-to-consumer applications.

What actionable steps can stewards take to ensure their paper procurement policy is "green"?

- Talk to peers in non-competing industries
- Reach out to suppliers for education
- Look for independent certifications

How does Wausau Paper® work as a sustainable business partner with corporate environmental stewards?

Wausau Paper® is consultative to corporate environmental stewards by providing information on industry trends and research. The company also manufactures a broad array of printing and writing papers that have earned the independent environmental certifications that many corporate stewards are looking for.



perspective
designer

Can an art director make a real environmental difference?

Unquestionably, art directors and others who spec paper for their clients' projects have considerable power when it comes to helping clients choose the right paper.

Think about how you can make a positive impact in three key areas of paper selection – the source of the pulp that is used to create the paper, how the paper is manufactured and how the materials you are creating will eventually get used.

What things should I look for in an environmentally responsible paper?

Choosing a paper that hasn't used an elemental chlorine-bleaching process for its pulp; avoiding UV coatings; and choosing papers with the highest percentage of recycled fibers are just some of the ways you can make a positive impact on your clients' projects. Using products that are certified by a third-party organization like the Forest Stewardship Council (FSC) or Green Seal® can help provide an easy way to navigate the many choices available in environmentally responsible papers.

What's the environmental impact of chlorine bleaching?

Some commercial wood pulp is bleached with chlorine, which creates dioxins. These highly toxic substances have a negative effect on the Earth's water systems as well as the fish and humans that depend upon them. At Wausau Paper®, the fiber used in our manufacturing process is bleached without the use of elemental chlorine or chlorine compounds. Recycled post-consumer fiber is processed chlorine-free.

What's wrong with UV coatings?

UV coating complicates the recycling process, limiting the ways in which the recycled paper can be used. Currently, UV-coated paper can only be recycled into tissue paper, corrugated packaging material and some construction materials. It cannot be recycled into new printing paper. So when you're planning your next project, consider whether UV coating is absolutely necessary. Other enhancements like foiling, adhesives and laminates can similarly affect a piece's recyclability and should be considered carefully.

Source: How Design, June 2007: howdesign.com/dc/features/greenpaper.asp



“By examining their business through an environmental ‘lens,’ managers can avoid expensive problems and create substantial value. Smart companies seize competitive advantage through strategic management of environmental challenges.”

From *Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage*, by Daniel C. Esty and Andrew S. Winston, Yale University Press, 2006.

What are the benefits of soy-based inks?

Soy-based inks have several important advantages over petroleum-based inks. On the front end, manufacturing soy-based inks releases fewer volatile organic compounds (VOCs) into the atmosphere. VOCs contribute to air pollution, so the fewer the better! On the back end, soy ink is more easily removed during the de-inking phase of the paper recycling process and does not result in any hazardous waste.

Sources: CleanGreenPrint.com
DT&G magazine: graphic-design.com/DTG/Business/greenprint.html
Soya: soya.be/soy-ink-benefits.php

How can I get my client to see the benefits of choosing a recycled paper instead of just the cost?

For starters, the idea that you have to choose between affordable and recycled is antiquated. Most environmentally responsible paper choices don't cost any more than other paper choices today. There are sustainable choices for papers at every budget level, with a variety of recycled content to meet the needs of any project.

As part of your commitment to doing what's right for the environment and what's right for your client's business, consider providing the client with a list of environmental savings generated by your sustainable paper choice. For example, by using Wausau Paper's Eco-Calculator, you could quickly print out a report showing that your project involving 5,000 sheets of 11x17, 80 lb. cover stock that contains 30% post-consumer fiber would result in:

- 0.5 trees saved from harvesting
- 3.0 lbs. of waterborne waste eliminated
- 439.9 gallons of water flow conserved
- 46.7 lbs. of landfill waste diverted
- 91.2 lbs. of atmospheric emissions eliminated
- 90.5 lbs. of greenhouse gas emissions eliminated
- 725,275.9 BTUs of energy conserved

That's a compelling story to share, and one that may help inform your client's own internal environmental initiatives. He or she may benefit further by promoting his or her sustainable choices to his or her customers, who increasingly want to do business with companies that are making smart decisions that positively impact the environment.

This kind of promotion can happen in simple ways, like the appropriate use of the FSC logo or Green Seal® verbiage on your piece, or in other ways, like integrated marketing campaigns that include press releases to publications interested in environmental design initiatives.

What are the different paper types to consider?

Virgin fiber is made without any recycled or alternative fibers. Virgin fibers generally come from trees, but they can also be made from alternative plant sources such as hemp or rice.

Recycled paper is available with a variety of different percentages of recycled paper fibers, ranging from 10% to 100%, with recycled content falling into two different categories:

Pre-consumer recycled fiber – called “broke” in the paper manufacturing business – comes from paper waste during the manufacturing process, such as leftovers and cutoffs from a paper mill or commercial printer. Broke has always been recovered and reused by paper manufacturers.

More important today is post-consumer recycled fiber. Post-consumer fiber is paper that has been put to its intended use and has been recycled to make new paper rather than being sent to a landfill. In addition to saving landfill space, recycling post-consumer fiber also conserves trees, water, energy and other natural resources.

Each year, Wausau Paper® uses about 50,000 tons of recycled post-consumer fiber in our products.

Do consumers really care about recycled papers?

A 2006 Gallup poll reported that roughly two-thirds of Americans consider themselves “environmentalists.” Amy Clarke, president of Peggy Lauritsen Design Group in Minneapolis says, “Clients tell us that, more and more, customers do care about a paper's pedigree. They notice the environmental seals on a printed piece and they appreciate the client's sustainability efforts.”

What are the best practices for sustainable design?

Here are some best practices that designers can implement to contribute to a sustainable world:


- Select a paper that is elemental chlorine-free or processed chlorine-free.
- Choose non-toxic water-based inks like soy.
- Minimize the use of coatings, laminates, foils, adhesive and labels that can affect the ability of a printed piece to be recycled.
- Choose local or regional materials and vendors wherever possible, to reduce energy transport costs.
- Lead discussions on project requirements to determine the best way to have the least impact on the environment while meeting the client's business goals.
- Drive usage by promoting usage of environmentally preferred papers.

For other ideas, check out “101 Things a Designer Can Do to Save the Earth” at onehundredthings.wordpress.com.

How can I encourage sustainable printing methods?

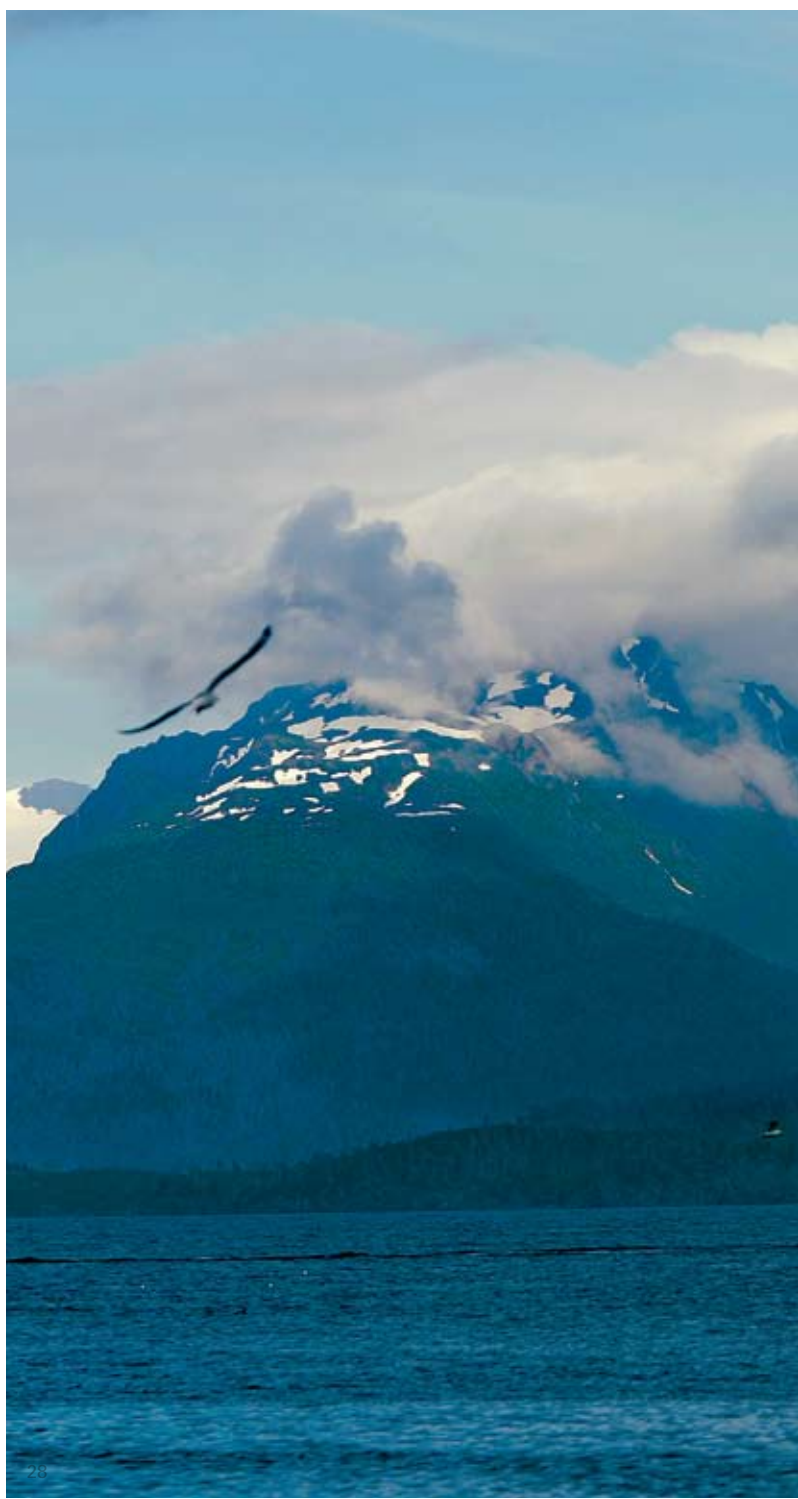
So you've spec'd the perfect paper and designed your piece to be as environmentally friendly as possible. That doesn't have to be the end of your contribution. Consider the next step in the process. The website greenbiz.com offers a checklist of questions you can ask your printer to ensure that it is using sustainable production methods that further contribute to the success of your initiatives and your client's goals:

- What is being done to minimize air emissions, including VOCs?
- What is being done to reduce chemical use or discharges to sewers?
- What is being done to reduce solid waste?
- What is being done to ensure the shop is in compliance with environmental and health and safety regulations?
- What is being done to minimize the shop's energy consumption?
- Are the cleaning solvents used safe for human health and the environment?
- What is being done to cut paper waste?
- Is the printer FSC certified?



*“What does it mean for the environment?”
is a strategic corollary of almost any
significant business decision today.”*

From *A Thousand Shades of Green* by Peter Winsemius
and Ulrich Guntram, Earthscan Publications, Ltd., 2002



glossary

Carbon Footprint

This is the total amount of carbon dioxide (CO₂) and other greenhouse gases emitted over the full life cycle of a product or service.

Elemental Chlorine-Free (ECF)

Paper fiber that has been bleached with alternative chlorine compounds as a substitute for elemental chlorine, which is harmful to the environment.

Forest Stewardship Council (FSC)

The FSC recognizes products that meet rigorous standards for responsible management of forest resources. It is the global benchmark for responsible forest management.

Green Seal®

A non-profit organization working to achieve a healthier, cleaner environment by promoting environmentally responsible products and services.

Greenwashing

Making too much of a small improvement. Wausau Paper® is committed to providing authentic, significant sustainable options. We are wary of any claim or solution that can be considered greenwashing.

Influencer

The art director making creative choices every day that incorporate environmentally preferable solutions.

Post-Consumer Waste (PCW)

Paper that has been put to its intended use and has been recovered from the waste stream and recycled to make new paper.

Processed Chlorine-Free (PCF)

Paper that is made from fiber recycled from post-consumer waste (PCW) and unbleached or bleached without chlorine compounds. PCF paper is the most environmentally friendly type.

Steward

The environmental executive seeking ways to advance a company's eco-impact.

Sustainability

Sustainability can be defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Timberlands

Forestlands used for the production of commercial wood products (including paper) through the repeated growing and harvesting of trees.

Vegetable-Based Inks

Inks derived from vegetables, including soy.

Wausau Paper® Brands

- △ ⊕ Astrobrights®
- △ ⊕ Astrobrights Glisten®
 - Astrobrights Textures®
- △ Astropaque®
- △ ⊕ Astroparche®
- △ ⊕ Creative Collection™
 - Exact Brights®
- △ Exact® Coated
- ⊕ Exact Digital®
- △ ⊕ Exact Eco 100®
 - Exact Ice®
- ⊕ Exact® Index
- ⊕ Exact® Multipurpose
- ⊕ Exact® Opaque Colors
- ⊕ Exact® Opaque White
- ⊕ Exact® Tag
 - Exact® Vellum Bristol
 - Executive Collection™
- △ ⊕ Professional Series®
- △ ⊕ Royal Complements®
- △ ⊕ Royal Cotton®
- △ ⊕ Royal Fiber®
- △ ⊕ Royal Laid®
- △ ⊕ Royal Linen®
- △ ⊕ Royal Marble®
- △ ⊕ Royal Metallics®
- △ ⊕ Royal SilkPlus®
 - Wausau® Bright White



The FSC logo identifies products from well-managed forests.
Wausau Paper® Cert. No. is SW-COC-1724
©1996 Forest Stewardship Council A.C.



Look for the Green Seal® to identify Wausau Paper® products that are Green Seal® certified. Green Seal is a registered trademark of Green Seal, Inc., Washington, D.C., and is used by permission.

Production Notes

Front & Back Cover

Paper: Astropaque® Brilliant White, 80 lb. Cover, FSC Certified

Printing: UV Four-Color Process, PANTONE® 534

Interior Spreads:

Paper: Astropaque® Brilliant White, 80 lb. Text, FSC Certified

Printing: UV Four-Color Process, PANTONE® 534

Photography:

Douglas Beasley, douglasbeasley.com

Photographed in Alaska; Kenai Peninsula and Denali Park



wausauPAPER®
K e y s t o n e