



SELECTING AND DESIGNING PRODUCT

Can we design with the earth in mind?



We believe quality gear is durable, functional, looks good, and has the smallest possible footprint during its life cycle. Our biggest environmental impact has to do with making products. At the design stage, we have the opportunity to select low-impact materials, efficient processes, and to take responsibility for the full life cycle of our products. When a product's useful life is over, it should be a resource for something else.

SELECTING PRODUCTS

We carry gear and clothing for all kinds of human-powered activities, including cycling, hiking, camping, climbing, snowsports, and watersports. By Board policy, we don't buy or design products for activities that are motorized, cause unacceptable environmental damage, or are intended to harm or kill animals.

Our Merchandising Strategy includes both MEC and non-MEC-brand products. The MEC brand is our cornerstone. We carefully choose other brands to ensure we have a range of options. We include environmental and social criteria in our non-MEC-brand vendor agreements. However, our current sustainability efforts focus primarily on MEC-brand products. We haven't started auditing other brands and rely on our Product Managers to follow up on individual product issues and opportunities.

The reality today is that the majority of products on our shelves consist of derivatives of the petrochemical industry, complex polymers, chemical finishes and treatments. These materials give products the technical benefits we expect, such as waterproof fabrics that "breathe". To make products, we require raw materials (natural and human-made), use resources (water, energy, chemicals), and create waste.

The complexity in product design is daunting. However, we're inspired to improve our design. Right now the biggest improvement we can make is with our MEC brand, primarily the textiles we use. In collaboration with our supply chain partners, we do this in three ways:

Longevity: Gear has to perform and last for many years

Substitution: Substitute harmful chemicals and materials with more benign alternatives

Efficiency: Use more efficient processes and fewer resources to make products

Longevity is our priority, from both a functional and aesthetic perspective. To optimize the life cycle of our products, we're developing standards to outline how many seasons a product should live in our assortment before it's redesigned. We'll report on our performance in our next report.

OUR PRODUCT DESIGN APPROACH

MEC'S DESIGN CHARTER

At MEC we understand that the best products endure in both quality and appeal. As such, we strive to design better, not different.

Accountability

Design is the first step in building members' trust.

Quality

Quality and integrity is the cornerstone of our brand promise. Quality is designed into product, not retrofitted in production.

Inspiration

The performance of MEC product inspires the user through an enhanced experience.

Progression

MEC product design meets the functional requirements of our current and future members through the appropriate use of resource and technology.

Simplicity

MEC design is functional and intuitive in both line and form.

Responsibility

MEC designs incorporate social and environmental responsibility as an inherent part of our conceptual thinking.

Evolving

MEC designs respond to the evolution of our membership.

Value

MEC uses its unique business model to provide technical, high quality products at accessible prices.

OUR IMPACT AND STRATEGY

Members bought over 10.2 million individual products in 2007, from kayaks to carabiners. Each of these has a life cycle impact.

Harmful substances, material waste, carbon emissions, and water use are our issues of greatest concern. However, right now we don't know the full scale of our impact for MEC-brand gear (much less non-MEC products). In 2005, we said we'd develop a five-year Product Sustainability Strategy. We've taken big steps to move from an initiatives-based approach to a more strategic framework for understanding and making progress around product sustainability in our supply chain. However, we're still formalizing it into a comprehensive strategy with goals, targets and measures. We will complete this by 2009.

COLLABORATION

The product design challenges we face are shared by others in our industry. Our impacts are intricately linked to the capacities and motivations of our brand partners, vendors, mills, and chemical providers. Our greatest opportunities lie in our efforts to facilitate collaboration and commercialize new solutions. We participate in initiatives with like-minded peers, including:

- The Outdoor Industry Association eco-working group to establish common definitions or standards in product sustainability. This will help establish common goals, and improve consumer communication.
- Being a member of bluesign® technologies ag to reduce our supply chain ecological footprint (see page 16).

SELECTING MATERIALS

One part of product design is selecting materials that deliver on performance requirements but have lower environmental impacts. Our biggest gains in this area? We eliminated polyvinyl chloride (PVC) from MEC drybags and personal flotation devices. Recycled polyester and organically grown cotton have been two other big wins for us.

All the cotton used in MEC-brand clothing is now 100% organically grown. When we started this program in the mid 1990s, we were one of the top five organically grown cotton buyers. Change becomes real when it is adopted by the mainstream; organically grown cotton is becoming one of those success stories. We are happy to now be among the top 25 buyers. As of 2006, we also require all cotton from non-MEC brand suppliers to be organically grown. This is a big step forward in working with our vendors.

Organically Grown Cotton	2005	2007
Amount of organic cotton (raw material) used to make MEC-brand apparel ¹ (kg)	129,300	209,100
Amount of synthetic chemicals avoided by use of organically grown cotton ² (kg)	42,600	69,700

In our last report, we reported that 4% of Canadian-made MEC-brand clothing used recycled polyester. Because we can only track quantities of fabrics that are directly purchased by MEC, we no longer report this information. (Since 2005, our factories have been purchasing most of our fabrics to MEC specifications, but we don't know the actual quantities.) While we can't quantify the increase in use, more products are made of recycled polyester than in the past. For the next report, we will improve our systems to track the amount of materials purchased.

OUR PRODUCT SUSTAINABILITY SYMBOL

Last year we began using a Product Sustainability Symbol to mark products that have one or more of the following environmental attributes:



- PVC eliminated
- Recycled polyester content (at least 50%)
- Organically grown cotton blend³ (at least 50%) or organically grown cotton (at least 100%)

In fall 2007 we carried 342 styles of products with one of the three attributes. We will continue to increase this number moving forward.

¹ We track the amount of organically grown cotton used in our apparel (excluding headwear, sleeping bag liners or shopping bags) through Organic Exchange estimates

² Based on Organic Exchange estimate of one-third of a pound of chemicals avoided for every pound of organic cotton used

³ Cotton blend means organically grown cotton mixed with other materials such as spandex, and not a blend with conventional cotton

MARKING A COMMON THEME

“A while back MEC started shifting over to organically grown cotton, eliminating PVC from product, using recycled polyester, and along the way we started thinking about how they were separate projects but examples of a common theme,” says Greg Scott, our Materials Development Manager. “They’re all feeding together into a common higher level: a commitment to reducing the impact of the products we design and make.”

At the initiatives level, MEC has formalized this process into a set of guidelines to distinguish products that represent a significant sustainability initiative. A symbol indicates products that contain at least 50% organically grown cotton or recycled polyester, or have been re-designed to make them PVC-free. By choosing lower impact materials and production techniques, MEC designers are working to reduce our ecological footprint on the planet.

“We wanted to call out these attributes to our members, to help them make buying distinctions,” says Greg.

In the fall of 2007, MEC took the next step and has started including other brand partners who have proven they follow the same guidelines.

Future steps? “Ten years ago growing organic cotton didn’t seem possible, but now companies like Wal-Mart are starting to do it,” says Greg. “For us, the ultimate goal is that these practices aren’t just initiatives, but examples of what is possible and a way of doing business.”

MEC’s natural next step is to focus on upstream supply chain work, to encourage fabric mills and chemical suppliers to willingly participate in reducing the impacts of their own processes and the products they produce.



Natasja Parlee designs with the earth in mind.

TAKING AN UPSTREAM VIEW

Our efforts start at the design table and move upstream. We rely on manufacturers, textile mills, fibre and chemical providers to supply us just the right fabric. Work at this level is extremely specialized and complex.

In 2005, we created a Materials Development Manager position to develop world-class materials that embody progressive environmental attributes. Since MEC doesn't have the in-house knowledge to work with suppliers at the chemistry and business process level, one of our first challenges was to find somebody who does. After much research, we landed on bluesign technologies from Switzerland.¹

Bluesign provides a third-party Environmental Health and Safety (EHS) standard. They were engaged to audit our materials supply chain, identify potential risks, and help put in place solutions. The company screens chemicals and ranks them with respect to EHS concerns, to encourage our mills to use preferred substances. It also provides on-site auditing to review processing practices and chemical usage.

However, the plot is never so straightforward. Audits cost money. Mills and chemical providers pay these costs and require payback on their investments. MEC is working with other outdoor retail companies to increase industry demand for process and chemistry audits and to create incentives for more mills to participate.

Working with bluesign is an opportunity to demonstrate market leadership that is bigger than MEC. It enables others in the textile and outdoor industries to tread more lightly on the planet while increasing supply chain efficiency and product quality.

By 2012, our target is to audit 70% of MEC-brand textile mills and chemical suppliers to bluesign® standards. By the end of 2007, 15% of our 48 mills had undergone or were undergoing audits.

¹ www.bluesign-tech.com

² www.chemicalsubstanceschimiques.gc.ca/challenge-defi/bisphenol-a_e.html. Government of Canada Takes Action on Another Chemical of Concern: Bisphenol A, Chemical Substances, Health Canada

³ National Toxicology Program, U.S. Department of Health and Human Services. "CERHR Expert Panel Report for Bisphenol A", 2007-11-26

⁴ It's a stated guideline in our Sustainability Policy and the United Nations Global Compact (www.unglobalcompact.org)



TAKING A PRECAUTIONARY APPROACH

For several years, we've been monitoring bisphenol A (BPA), a chemical used to make hard, clear, polycarbonate plastic. It's used in water bottles, containers, and epoxy resins in the linings of metal-based cans. Some studies show that when rodents are exposed to low levels of BPA, their behaviour and neural development can be affected. While BPA has a low acute toxicity, it is a potential endocrine disrupter – raising concern that long-term low dose exposure may induce chronic toxicity in humans.

As a retailer, we rely on external science and health authorities to conduct appropriate assessments and guide our decision-making around the consumer impact of products. In December 2007, public concern was growing and we found ongoing scientific uncertainty on this issue. We took a strong precautionary stance and decided to stop selling polycarbonate products non-essential to backcountry safety, pending a Health Canada assessment. Widespread media picked up on our decision, increasing debate around human health issues from plastics in general and polycarbonate bottles specifically.

In April 2008, Health Canada assessment results deemed BPA harmful in specific instances, and proposed a ban on polycarbonate baby bottles, and codes on food and drink packaging. They also said that low levels of BPA did not pose a significant health risk to general Canadian populations.²

Even though Health Canada has not deemed a risk to adults when used properly, we've decided not to reintroduce polycarbonate products, given ongoing debate in the science community³ and available alternatives such as stainless steel, polypropylene or co-polyester.

What have we learned? That principled decisions are rarely black and white, even with direction to take a precautionary approach.⁴ (This case has challenged us to better articulate decision-making criteria.) That independent science-based bodies are critical to evaluating and informing decisions. And that business decisions can have significant influence on public policy debate.

CLOSING THE LOOP

Even after we've sold a product, we think it's important to help make sure it's ultimately re-used or recycled in the best way. We're pleased about some of the work we've done in this area, including solid return and repair options, our Outdoor Gear Swaps, and used gear donations.

Design is a critical piece to maximizing end-of-life use. Simply put, at the design stage, consideration can be given to the potential for dismantling or recycling products. While logistically and technologically challenging, take-back programs are getting more feasible – in fact, they are legislated in some industries.

This year, we launched a Garment Recycling Program. Members can bring back used items with a 90% or greater polyester content. They drop clothing off at our stores, and we ship those items back to Teijin, a fabric manufacturer in Japan. The program is in its early stages and we haven't yet shipped the items that we've collected.

When we do, the garments will be crushed, turned into granules, then run through a chemical reaction process that removes dyes and other chemicals before turning it back into raw polyester (polyester polymer), and new Eco Circle fibre. These fibres will be used to make new garments, such as those in our Trek program, which consists of 100% post-consumer recycled polyester (this was a goal in our last report).

MEMBER ENGAGEMENT

Ultimately, change comes down to choices at the check-out counter. We rely on members to make informed purchasing decisions. After all, each purchase is an opportunity for them to make a difference.

Members and consumers are increasingly interested in sustainability. Our research tells us they are looking for truly "good" solutions – gear that performs *and* is responsible.¹

They're also seeking information. We provide this through our Product Sustainability Symbol. We also have detailed sustainability information on our website and in our catalogues. We continue to improve the ways we communicate, particularly around harmful substances in products. We hope the public keeps asking questions and engaging us in informed debates, to help the industry move toward providing increasingly transparent information.

LOOKING BACK

	Target
Assess feasibility of MEC take-back program in the next three years (2008)	Made
Roll out new Trek fleece fabric in 2007	Made
Create a 5-year Product Sustainability Strategy and work plan based on our capacity, impacts, and ability to control and influence change	Ongoing

REACHING FURTHER

Strategic Goals:

- Reduce waste and harmful substances.
- Improve our carbon, energy and water footprint.

2012 Target	Target Date
70% of MEC-brand textile mills and chemical suppliers are certified, or are being certified to best practice standard	2012
Actions	
At least 25% of MEC-brand textile mills and chemical suppliers are certified, or are being certified to best practice standards	2009
Develop 5-year MEC-brand Product Sustainability framework and strategy including goals, targets and baseline measurements for improvement	2009
Establish systems to track quantities of material purchased to make MEC products	2009
Develop a benchmark for expected redesign lifespan of products in each of our product categories	2009

¹ 2007 Member Sustainability Survey