

How2Recycle

The How2Recycle Label Soft Launch Report

MARCH 2013

Executive Summary

Today's consumers, and the companies who serve them, share a common cause: They want to recycle. Consumers want on-package recycling instructions and companies want to communicate the recyclability of their packaging. In the current marketplace, however, violations of the Federal Trade Commission's Green Guides are common, and no harmonized labeling system exists across all packaging materials and types. The How2Recycle Label offers an easy to use solution.

The How2Recycle Label is a project of GreenBlue's Sustainable Packaging Coalition® (SPC), an industry working group of approximately 200 companies and related organizations with expertise throughout the packaging supply chain. Through strong member support, a science-based

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supply chain. Through strong member support, a science-based approach, and supply chain collaborations, the SPC endeavors to build packaging systems that generate economic prosperity and sustainable material flows.

This Report details the successful Soft Launch of the How2Recycle Label, which included twelve participating companies in 2012. During the Soft Launch, the How2Recycle Label appeared on more than 50 million packages, received significant media coverage, and enjoyed widespread exposure on the website and via social media.

The Soft Launch findings verify that the How2Recycle Label is understood by consumers, leads consumers to action, elicits positive impressions of products and companies, and meets Federal Trade Commission (FTC) requirements. In addition, the Label has proven to be a valuable tool for companies wishing to understand the specific recyclability of their packaging. In short, it is fulfilling the project goal of improving both the quality and quantity of package recycling.

The How2Recycle Label project began in 2008 in response to the many challenging issues surrounding on-package recyclability labeling. The phases of the project included research,

design exercises, qualitative and quantitative consumer testing, and the 2012 soft launch. In addition, GreenBlue conducted outreach with a diverse variety of stakeholders, including material trade associations; local, state, and federal governments; recyclers; and non-profits.

Specifically, GreenBlue consulted extensively with the FTC, and the How2Recycle Label meets FTC requirements by:

- providing the appropriate qualifiers when at least 60% of consumers do not have access to recycling;
- requiring the recyclability of all components to be included (not just the "widely recycled" ones); and
- specifically addressing packaging constituents that affect recyclability.

GreenBlue will continue to provide current information on the Label and recyclability via the How2Recycle website (<u>www.how2recycle.info</u>). Regular updates will address ongoing messaging challenges, such as consumer confusion with Resin Identification Codes (RICs), and, along with the increasing adoption of the How2Recycle Label, will elevate consumer understanding of recycling and the packaging industry's commitment to sustainability.



Goals and Development

During the first phase of the How2Recycle Label project, in 2008, GreenBlue conducted research on current labeling options in the market, uncovering the following problems¹:

- Unclear labels confuse consumers and greenwashing is common.
- No harmonized, consistent labeling system exists across all material types.
- Existing labels are not comprehensively applied to all material types and individual package components.
- Federal Trade Commission (FTC) Guides for the Use of Environmental Marketing Claims (the "Green Guides") are ignored or inaccurately interpreted.
- Consumers desire transparency and proactive sustainability efforts from companies, but remain skeptical.

In response, GreenBlue formed a project team and working groups of SPC member companies, GreenBlue staff, and additional stakeholders to develop the How2Recycle Label. The goals of How2Recycle are:

 Reduce confusion by creating a clear, wellunderstood, and nationally harmonized label that enables industry to convey to consumers how to recycle a package. **Current Participants:**

Ampac Best Buy Clorox Costco Wholesale The Esteé Lauder Companies General Mills The Kellogg Company Microsoft Minute Maid (Coca Cola) REI Sealed Air

- Improve the reliability, completeness, and transparency of recyclability claims.
- Provide a labeling system that follows Federal Trade Commission Green Guides.
- Increase the availability and quality of recycled material.

Unlike typical recyclability labeling, the How2Recycle Label offers:

- Access to online recycling information via <u>www.how2recycle.info</u> website.
- Specific, targeted recycling instructions.
- Comprehensive component labeling.
- Uniformity across material and package types.
- Ongoing marketing and outreach.

¹ GreenBlue's Labeling for Package Recovery report, October 2011, part of the Closing the Loop series: http://www.greenblue.org/publications/labeling-for-package-recovery/

SPC began development of the How2Recycle Label program through evaluation of a successful, UK-based model: the On-Pack Recycling Label (OPRL) program. OPRL is a partnership between the quasi-governmental agency Waste & Resources Action Program (WRAP) and the British Retail Consortium (BRC). OPRL is successfully in use by over 100 companies on over 60,000 product lines, with participants saying it improves understanding of recyclability.²

An initial design exercise yielded three primary design options. GreenBlue refined the design options through three qualitative consumer tests, finding the well-recognized chasing arrows to be the most appropriate icon. GreenBlue hired MAi Research to conduct a pre-soft launch quantitative test, which included research elements identified by the FTC.





² The On-Pack Recycling Label scheme aims to deliver a simpler, UK-wide, consistent, recycling message on both retailer private label and brand-owner packaging to help consumers recycle more material, more often: http://www.oprl.org.uk/

Soft Launch Implementation

The Soft Launch began January 2012 with nine participating companies. Two withdrew their participation and five joined, for a current total of 12. The two companies who withdrew continue to consider implementation as resources allow.

GreenBlue estimates that over 3000 stock keeping units (SKUs) carry the How2Recycle Label on over 50 million packages that are either on shelves or were previously purchased by consumers. Many of the packages appeared in the market midway through 2012 or later in the year.

Participants joined How2Recycle for the following reasons:

- To demonstrate leadership and promote recycling behavior
- To encourage clear and transparent recycling communication
- To easily comply with Federal Trade Commission Green Guides
- To help understand recyclability of their packaging
- To support and grow a significant SPC project
- To improve and increase clean streams of recycled materials

The goals of the Soft Launch were:

- To gather information on ease of implementation
- · To identify and solve design and implementation issues
- To collect additional feedback from consumers and other stakeholders
- To develop the long-term business plan
- To establish a predictable fee structure for participants

GreenBlue estimates that over 3000 stock keeping units (SKUs) carry the How2Recycle Label on over 50 million packages.

Soft Launch Lessons: Implementation within Participating Companies

Implementation is easiest on new products or when an existing brand undergoes a re-design. Re-designing a package label can be resource-intensive. Given the expense and effort, it is most efficient to implement the How2Recycle Label during the re-design or new printing of an established package, or during design of a new product's package.

Brand Managers and Corporate Sustainability Officers are key internal stakeholders to include in conversations on implementation. GreenBlue remains willing to provide company-specific consultation and presentation in order to help a diversity of internal decision-makers fully understand the history, benefits and use requirements of the How2Recycle Label.

GreenBlue vetted the How2Recycle Label design and its concurrent development process extensively through GreenBlue's legal counsel and the FTC. The License Agreement was amended several times to address Participant concerns. In addition, to protect GreenBlue and the How2Recycle stakeholders, GreenBlue has applied for both copyright and trademark of How2Recycle. However, participants are still conducting time-consuming and costly internal legal reviews. GreenBlue expects further implementation of the How2Recycle Label in the marketplace to provide industry familiarity that will shorten legal reviews. An internal approach focusing on a cooperative legal sign-off as opposed to an in-depth analysis will likely yield a more efficient legal process.

Soft Launch Lessons: Design Considerations

Responding to evolving design scenarios, GreenBlue continues to clarify and update the How2Recycle Guidance Document. Critical design considerations identified thus far include:

Dark package colors like royal blue or brown require reverse print with a transparent background for readability. Package designers should always evaluate readability after application to package artwork.

In some cases, a package component cannot be labeled directly on the component. It is acceptable to label all packaging components on the outermost package.

It is important to update or eliminate previous recycling information to prevent conflicting and confusing messaging. Examples of unacceptable language include "disposal instructions," and

"recycle where facilities exist". Similarly, Resin Identification Codes (RICs) must be placed in an inconspicous location and follow both FTC and ASTM guidelines (see Section on Resin Identification Codes).

Bottles with full-body shrink sleeve labels require a specialized label. Full-body shrink sleeve labels negatively impact recyclability and require qualifying language to comply with the FTC Green Guides. Figure 1 shows the label required for bottles with a full-body shrink label. The Association for Post-Consumer Plastics Recyclers (APR) and label manufacturers are working to identify technical solutions for sorting and processing bottles that include this type of label.

Figure 1: Bottle with Full-Body Shrink



Recyclability Data

The Federal Trade Commission requires recyclability claims to be based on consumer access to recycling. Access to recycling data, also known as reach data, measures the percent of the U.S. population with access to recycling an item. Reach data includes access to both curbside and municipal drop-off collections.

How2Recycle labels packaging in four categories, defined by different levels of access to recycling. Figure 2 shows the general categories of recyclability used during the Soft Launch period. Please note that this chart will be updated based on new plastics reach data released in March 2013.

Figure 2: Recyclability Chart Used During the Soft Launch

		Check Locally		Store Drop-off		
	Widely Recycled	Limited Recycling - Not Recycled in All Communities	Not Yet Recycled	Store Drop-off		
MATERIAL	At least 60 percent of the U.S. population has access to recycling this package type at either curbside or at drop-off locations.	Between 20-60 percent of the U.S. population has access to recycling this package type.	Less than 20 percent of the U.S. population currently has access to recycling this package type, or this material is a contaminant to common recycling systems.	At least 60 percent of the U.S. population has access to Store Drop-off locations (primarily grocery retailers) for this package type.		
Glass	Bottles & Jars					
Metal	• Cans	Lids & TraysAerosols	Peel-off Foil Seals			
Paper & Corrugated	• All Paper and Corrugated Packaging		Laminated or Waxed			
Plastics	Bottles & Jars	• Cups, Tubs, Trays, Lids, Clamshells	Films, Wrap, Pouches, TubesBiodegradable Plastics	 Certain Bags, Films and Wraps[*] 		
Composite Materials		Liquid food & beverage cartons	Multi-layer packaging, Chip bags			

*See plasticfilmrecycling.org for more information.

Reach data used to create the above chart came from the following publicly available studies on access to recycling:

- American Forest & Paper Association (R.W. Beck/SAIC—2010)
- American Beverage Association (R.W. Beck/SAIC—2009)
- American Chemistry Council (rigid and film plastics) (Moore Recycling – 4/11, 4/12, 3/13)

Reach data do not always consider technical recyclability, additives, treatments, or other scenarios that impact recyclability. How2Recycle uses a secondary filter based on technical recyclability, which informs specific messaging and identifies known problem materials in the recycling stream. Reach data and all secondary filter information are found in the How2Recycle Guidance Document, available to participants.

Soft Launch Lessons: Data

Multiple sources of reach data create data gaps and inconsistencies in methodologies. For example, access data for aerosol cans cited by some internet-based resources could not be verified, and information on "coated paper" does not provide enough information for the variety of coated paper packaging that exists. GreenBlue is collaborating with material trade associations to unify data collection methodologies and ensure clear and complete data collection.

GreenBlue acknowledges that packages labeled "widely recycled" may land in the hands of those with limited or no access. "Widely recycled" items are those package types for which there are recycling options accessible for at least 60% of consumers, though access to recycling for most "widely recycled" items is closer to 75% - 85%. GreenBlue staff hypothesizes that consumers without recycling access acknowledge and are aware of living with reduced services. Examples include towns and rural communities with no access, or areas with limited access only through community drop-off centers which label their bins at drop-off sites.

Legal Considerations

Federal Trade Commission (FTC) Guidelines for the Use of Environmental Claims ("Green Guides.")

GreenBlue recognizes the significant role of the FTC regarding environmental claims, particularly those regarding recyclability. The first meeting between GreenBlue and the FTC regarding the How2Recycle Label included a representative from the U.S. EPA and occurred on May 20, 2009. During the meeting, the FTC conveyed the following points:

- The FTC is not able to provide any approvals of labels or claims, or any endorsements.
- The FTC does not involve itself in specific methodological recommendations, but rather relies on the "competent and reliable scientific evidence, defined as tests, analyses, research, studies or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results."
- Issues of concern included potential consumer confusion regarding recyclability and recycled content, and the need for a qualifier in conjunction with "Check Locally" language.

GreenBlue addressed the above considerations during the consumer testing process. FTC's Bureau of Economics reviewed the quantitative consumer test, conducted through MAi Research. GreenBlue made the following changes based on FTC consultation:

- 1. Use of "how2recycle.info" as the website URL. GreenBlue also explored "Restart the Cycle" with the concurrent "restartthecycle.com" website. However, because the quantitative test included "how2recycle.info" on the label and it clarified the label's intent, FTC staff recommended retaining that website.
- 2. Adding qualifying language. Quantitative research showed high levels of consumer understanding of all aspects of the label, including the use of the term "Check Locally". However, some FTC staff members were uneasy with using "Check Locally" without additional qualifying language. As a result, GreenBlue added qualifying language "Not recyclable in all communities" to "Check Locally" labels, which is consistent with the negative-type language encouraged in the FTC Green Guides.

GreenBlue is confident that the proposed system meets and exceeds both the Green Guides and ISO 14021, is considered acceptable by key FTC staff members (who, however, do not have the authority to make formal or official FTC determinations), and reinforces the FTC's mission regarding consumer claims. Specifically:

- 1. <u>How2Recycle's "Widely Recycled" Label.</u> FTC's classification of "Substantial Majority" equates to the How2Recycle "Widely Recycled" category. The corresponding label icon is the mobius loop.
- 2. <u>How2Recycle's "Check Locally" Label.</u> The FTC Green Guides state: "Claims of recyclability should be qualified to the extent necessary to avoid consumer deception about any limited availability of recycling programs and collection sites." The How2Recycle label category "Check Locally" includes a "Not Recycled in All Communities" qualifier that is consistent with examples of negative language provided within the Green Guides. It should also be noted that the U.S EPA is supportive of driving consumer action toward checking their local recycling systems.
- 3. <u>How2Recycle's "Not Yet Recycled" Label</u>. The "Not Yet Recycled" category further qualifies the very limited availability of recycling for packages where less than 20 percent of the population has access to recycling that package.
- 4. <u>How2Recycle's "Store Drop-off" Label.</u> This category is for polyethylene bags, wraps, and films. Though over 60% access to recycling these films exists, it is at retail collection points and not through traditional recycling means like curbside. The "Store Drop-off" acts as a qualifier.
- 5. <u>How2Recycle's Focus on Components</u>. The FTC Green Guides state: "For products or packages that are made of both recyclable and non-recyclable components, the recyclable claim should be adequately qualified to avoid consumer deception about which portions or components of the product or package are recyclable. Claims of recyclability should be qualified to the extent necessary to avoid consumer deception about any limited availability of recycling programs and collection sites. If an incidental component significantly limits the ability to recycle a product or package, a claim of recyclability would be deceptive. A product or package that is made from recyclable material, but, because of its shape, size or some other attribute, is not accepted in recycling programs for such material, should not be marketed as recyclable."

The How2Recycle Label meets these requirements by: 1) requiring all components to be labeled, and 2) requiring messaging specific to the package.

6. <u>Data based claims.</u> Assignment of packaging materials to How2Recycle label categories is thoroughly and independently researched and documented, and is based on the "competent and reliable scientific evidence, defined as tests, analyses, research, studies or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results."

GreenBlue maintained an ongoing dialogue with FTC throughout development of the final label designs, and continues on an as-needed basis.

Intellectual Property

In order to prevent misuse of the How2Recycle Label, GreenBlue has filed for both a trademark and copyright, and both are pending.

Considerations for Packages Distributed Outside of the US

For some companies, packages may be designed for both US and foreign markets, or could end up crossing borders. GreenBlue is working with various stakeholders in Canada to develop a dual-language label that works concurrently with the US label. Beyond Canada, GreenBlue recommends using a "US Only" qualifier to How2Recycle Labels that might be imported into other countries. Many packages that are clearly designed for US consumers cross borders readily with no legal implications, and a qualifier will clearly designate that the label is based on access within the US.



Plastic Bags & Films

Plastic bags and films present a unique opportunity, given that:

- Their use is widespread;
- While access to recycling them at curbside is available to less than ten percent of the population, the majority of the population has access to drop-off at a retail location³; and
- Bag bans may limit the availability of important collection mechanisms.

GreenBlue developed a special version of the How2Recycle label for acceptable plastic films that includes "Store Drop-off" language. This label communicates the specific requirements for recycling for plastic bags and films that are primarily polyethylene (#2 HDPE and #4 LDPE) and thus recyclable at retail locations that collect plastic bags. "Recycle if Clean and Dry" on-label messaging was added for the benefit of retailers and recyclers concerned about contamination.

Consultation with the Food Marketing Institute (FMI), the industry group representing grocery retailers, confirmed that this material is desirable, commonly bailed with back-of-house films such as shrink wrap, backhauled to distribution centers, and usually a source of revenue. The primary recyclers of this material have the capacity to process additional material. GreenBlue will continue to consult with FMI as increases in packaging with the Store Drop-off label continue.

GreenBlue is partnered with the American Chemistry Council's Flexible Films Recycling Group (FFRG) in order to encourage education at retail locations and drive increases in plastic film recycling. A poster including the film label is available for retailers for free download and use.

The Trex Company offered a valuable service by providing participants with analysis of the recyclability of their polyethylene films. Trex's analysis is currently the primary way that use of the How2Recycle film label is authorized. In the future, a design specification authored by the Association of Post-Consumer Plastics Recyclers will also be an acceptable recyclability analysis for use of this label.

³ American Chemistry Council's study on access to plastic retail bags and plastic film (wrap and sack) recycling: http://plastics.americanchemistry.com/Education-Resources/Publications/2012-Plastic-Film-and-Bag-Recycling-Collection-National-Reach-Study.pdf

Consumer Testing

GreenBlue conducted qualitative and quantitative research surveys during the design and development phase of How2Recycle. Three qualitative tests occurred in 2009 and 2010, followed by a quantitative test conducted by Marketing Analysts, LLC (MAi) in 2011. The goals of the consumer testing were to:

- Assess consumer understanding of the label
- Assess consumer behavior after exposure to the label
- Confirm that consumers did not confuse the label with recycled content (see section on Federal Trade Commission)
- Evaluate if recycling labels influence purchasing decisions and/or brand perception

The consumer testing verified that the How2Recycle Label stimulates interest in recycling and is well-understood. Approximately eight out of ten consumers tested were at least somewhat interested in seeking more information about recycling after seeing the label. The website attached to the label was the top destination to seek more information, followed by municipal websites, looking for information previously delivered to their home, or calling a recycling center. The URL <u>www.How2Recycle.info</u> also showed strong recall and traffic driving potential.

The consumer testing also found that a "Not Yet Recycled" label would not negatively impact consumer purchasing decisions and that consumers did not confuse the Label with recycled content.

Finally, testing revealed that consumers generally do not understand Resin Identification Codes (RICs). RICs denote resin types for recycling and plastic industries. They were never intended as a consumer communication tool or to make recyclability claims. The general public, however, tend to equate RICs with recyclability and are generally confused by them, which presents a significant messaging challenge. (For more on RICs, please see page 35.)

Additional details of the consumer testing are available upon request.

Soft Launch Lessons: Survey Results

GreenBlue launched a feedback survey on How2Recycle.info in June 2011. The goal for the survey is to collect feedback from the general public, and to corroborate the findings of the prelaunch consumer testing in a qualitative manner. In August 2012, survey revisions allowed for respondents to self identify as consumers, government officials, brand owners/retailers, or "other". Respondents selecting "consumer" receive the original feedback survey, while all other groups receive the original survey and additional applicable questions. The survey remains live on How2Recycle.info, collecting ongoing feedback. A general contact form is also available on the website.

In addition to inquiries through the general contact form, survey respondents can indicate that they wish for a response to their feedback. Staff responds to these requests for feedback via e-mail with any additional relevant information (unless an email is not provided).

The following analysis of survey results includes data from the survey launch through January 31st, 2013. It does not include survey responses from the government officials, brand owners/retailers or "other" categories (which total 11 responses). It also does not include queries sent to the general contact form, which typically collected general recycling questions, media inquiries, and inquiries about using the label on products. The survey relies on consumer initiative to go to the website to find more information or take the survey, and thus is a self-selecting group. The survey is anonymous unless a participant chose to include their email address.

The total number of responses, or N, for this time period is 283.Respondents did not answer every question. "No Answers" are removed from each question, making N vary slightly by question. This survey is not statistically significant in that it only captures information from consumers that take the initiative to go to <u>www.How2Recycle.info</u> and fill out the survey. The survey is ongoing and will continue to collect information.

<u>Question l</u>: Do you consider yourself...?

Question one allows survey respondents to self select their recycling ethic and behavior. Three multiple-choice options are offered.

N = 283



Question 2: How did you find out about the How2Recycle Label?

Answer	Percent			
Read about it on an internet article or blog	39%		If you saw the label on a packa product was it on?	age, what
Saw it on a package	35%	7		
			Sealed Air "Fill Air"	79%
Read about it in printed material	9%		Costco Kirkland Signature	6%
Saw it on Facebook or Twitter	3%			
			Seventh Generation Products	1%
Heard about it from a friend	3%			
		4	Yoplait Yogurt	2%
Contacted by GreenBlue staff or SPC member	3%			400/
-		4	No Answer	12%
Other	8%			

Question 2 gauges where exposure to the label occurs. The How2Recycle website and survey launched prior to labels appearing on packaging, resulting in high initial exposure from non-packaging sources. As packages appeared on the market, the percent of exposure from "saw it on a package" rose.

Of those that saw the label on a package, a significant majority saw the label on Sealed Air's "Fill Air" product. This skews the survey analysis towards plastic bag and film reactions and commentary.

There are several possible explanations for why survey responses heavily weight towards Sealed Air "Fill Air" products. Both Amazon and Microsoft currently use Sealed Air's air pillows in customer shipments. This provides high exposure to consumers, as the label is front and center when they open a package. These items also receive wide distribution. Other labels may be more intuitive than the "Store Drop-Off", thus consumers do not feel the need to search out more information on the website for more commonly known recycling options.

N=283

Question 3: How would you describe your experience with the label?

Question 3 allows respondents to rate their overall experience with the How2Recycle label. Experience with the label has an overall positive trend. 75% of respondents selected somewhat or overwhelmingly positive, while 20% said neutral and 5% said negative.

Neutral and negative responses include confusion over RICs, concern that the company is not making corresponding sustainability improvements, and need for more information. While space is not provided for comment in this question, later comments and responses reveal trends among neutral and negative responses. Consumers ask for use of "recycling numbers" on the assumptions that they equal recyclability or their municipality's outreach uses RICs. While How2Recycle is compatible with all RIC labeling, reconciling RIC centered outreach with How2Recycle will continue to warrant attention. Consumers desire more information about a company's sustainability efforts or where they can recycle an item. Finally, only a handful of respondents found the design confusing or unclear.

N=261



Experience with How2Recycle

<u>Question 4:</u> Do you find the label...?:

In addition to gauging initial experiences and positive feelings toward the label, the survey also measures self-identified ease of understanding. Not only do respondents have positive experiences with the label, they also find it easy to understand; 85% of respondents answer somewhat easy to easy to understand.

Explanations for somewhat unclear or unclear understanding are similar to those in question 3. Consumers ask for the "recycling number" or more information on their recycling options. A great deal of confusion and misinterpretation surrounds the RICs, leaving open opportunities for further education.

N = 267

Ease of Understanding



Question 5: Did the label and/or website teach you something you didn't already know?

Question five allows respondents to identify whether or not the label or website taught them something new. How2Recycle is both an on-package recycling instruction as well as on online tool to provide general recycling information to the public. Additional functionality and resources for consumers will be built in to the website during 2013. The current information available on both labels and the website provide 73% of respondents new or refined information about recycling. The extent to which respondents learn something new also relies on their willingness to spend time on the website reading information.

Website metrics provided earlier in this report support widespread activity on How2Recycle, which staff hope to further increase with website development and additions. However, since this survey is web-based, responses are limited to those that already took initiative to go to the website, and missing other individuals that saw the label but chose not to seek out additional information. It should also be noted that in the pre-launch qualitative consumer testing, 80% said the label made them "somewhat interested" or "very interested" in learning more about recycling. These survey results correlate with the qualitative pre-launch testing.

N = 273



Learning New Information

Question 6: Did you change your recycling behavior based on the label and/or website?

While respondents have positive experiences with How2Recycle and learn new information, only about one third change their behavior.

After selecting "Yes", respondents receive the prompt "What did you do differently?" with a fill in the box. If selecting "No", "Why not?" with the following multiple-choice options appear.

- I already knew how to recycle my package
- I don't have access to recycling for this package type
- I don't believe it's actually getting recycled
- I don't believe it really makes much of a difference
- Other [fill in the blank]

Behavior Change

Yes Answers include:

- Recycling more/new items
- Seeking out more information on specific items or local recycling programs
- Paying more attention to what items go in their bin

No Answer	%
I already knew how to recycle my package	70%
I don't have access to recycling this package	15%
I don't believe it's actually getting recycled	2%
I haven't seen it on a package yet	3%
Other	10%

A very high percentage did not change their behavior because they already knew how to recycle their package. A possible explanation is the respondents have general recycling knowledge and thus indicate that they know how to recycle their package. The number of participants seeing the label on something other than an actual package may also contribute to this trend. Respondents that have seen the label on a package are more likely to change their behavior, as seen in the analysis in the following section.

N = 268

<u>Question 7:</u> If you saw the label on a product, is your impression of the company that makes that product...?:

Consumers are more positive about companies that use the How2Recycle label.

Respondents have the opportunity to explain their answers to this question. The breakout below summarizes these explanations. The breakout is a summary of trends, and does not imply ranking, is not inclusive of all comments, and strives to maintain the anonymity of respondents.



Impression of Company

Reasons for "Less Positive"

- The package was not recyclable
- Desire for "recycling numbers"

Reasons for "More Positive"

- The company "cares"
- The company cares about the environment
- The company is trying to be green or transparent
- The company is responsible

Reasons for "The Same"

- I expect this information
- The Mobius loop already does the job/does not provide enough new information
- No Answers

Feedback regarding the Mobius loop and "recycling numbers" (RICs) reiterate consumers' misunderstanding of these items and suggest the need for further education.

N = 252

Additional information gathered from the survey includes 38 requests for feedback to survey responses, 40 offers to help with How2Recycle outreach, and 78 requests to join the GreenBlue newsletter list.

Survey Results: Comparison Between "Saw it on a package" and All Other Exposures The following section compares responses from consumers that saw the label on a package (Group A) against consumers that saw the label through all other exposure types (Group B). The goal of this comparison is to examine any differences in on-package exposure. As more packages using the How2Recycle label enter the market, the SPC anticipates a higher percentage of respondents will see the label on a package. Response numbers are 99 for Group A and 184 for Group B.



Question 3: How would you describe your experience with the label?



No significant differences are found between Group A and Group B. Group A showed slightly higher responses for an "overwhelmingly positive" experience. This result indicates that actual application does not create more negative views compared to portraying the label in media or other outlets. This measure is particularly important as more packages hit the market, indicating that positive experiences with How2Recycle will not decrease.



Group A shows a slightly lower ease of understanding. While the two groups have similar results for the "Easy to Understand" category, Group A shows slightly higher numbers in "Somewhat Unclear" and "Unclear". As consumers see the label on a package, they face new information in a new format, sparking more confusion than exposure via all other outlets. However, 75% of Group A still finds the label somewhat easy to easy to understand. The comparison in this question shows that exposure to the label on a package does require a learning curve, though small in nature. A working hypothesis is that as more packages hit the market, the label will become a more commonplace norm. An initial adjustment period is occurring.



Question 5: Did the label or website teach you something you didn't already know?

Respondents that see the How2Recycle label on a package learn more new information than those that do not. 80% of respondents in Group A learned new or refining information, while only 65% in Group B learned new or refining information. This shows a trend towards greater education by way of on-package labeling. Providing new information is an essential link in successful behavior change.

Question 6: Did you change your recycling behavior based on the label and/or website?

To elaborate on "Yes" answers, respondents receive a fill in the blank form. To elaborate on "No" answers, respondents receive a multiple-choice question, which includes a fill in the blank option.



N = 99

Yes Answers include:

- Recycling more/new types of plastic bags and films
- Sought more information
- Stopped putting bags and films in curbside
- Followed instructions on label

No Answers	%
I already knew how to recycle my package	43%
I don't have access to recycling this package	32%
Still need more information	11%
Other	13%

Yes Answers include:

- Recycling more and new items
- Paid more attention to what they recycled
- Sought more information

No Answers	%
I already knew how to recycle my package	81%
I don't have access to recycling this package	8%
Have not seen it on a package	5%
Other	6%

Behavior Change

Not on a Package



Seeing the label on a package sparks more behavior change than seeing the label in other exposures. About half of those that saw the label on a package changed their behavior, while only about a quarter that saw the label elsewhere did. The label drives recycling more, and new, film items, seeking more information, and following instructions. This behavior change fulfills the program goals of increasing and improving the quality of recycling. Those that did not change their behavior claimed that they already knew how to recycle, do not have access, or need more information.

For respondents that did not see the label on a package, over 80% claimed that they did not change their behavior because they already know how to recycle. However, this number is significantly lower for the group that saw the label on a package. This difference indicates that some consumers believe they know how to recycle, but may change this view when they see the label on a package and learn new information.

In both Group A and Group B, some consumers claim that they do not have access to recycling and thus do not change their behavior (32% in Group A and 8% in Group B). For Group A, we know that most respondents see the label on plastic film. We also know that "Store Drop-Off" access is available to the majority of the US population. This may indicate an area of needed education to explain what "Store Drop-Off" means and what materials are compatible in these bins. It may also include respondents from other countries that really do not have access. GreenBlue is actively working with several key industry partners on educational pilots to shape further outreach efforts. <u>Question 7:</u> If you saw the label on a product, is your impression of the company that makes that product...?:



There are no significant differences in impression of a company between Group A and B. Removing "No Answer" responses changes percentages of in both groups, with "More Positive" in Group B seeing a greater increase (rising to about 83%). If "No Answers" are removed, Group B has about a 10% higher "More Positive" view. Despite the difference, both groups show significant positive views of companies that use How2Recycle and very low less positive views.

Qualitative Comments

The following comments come from the How2Recycle.info survey. They are representative of common trends and themes in comments and other general contact. They are corrected for spelling or capitalization errors.

"The ideas behind the label are great but they need to be implemented more universally and manufactures and governments and NGO's need to work together to better implement recycling."

This comment is a great example of general support and acknowledgement that How2Recycle is a group effort. More information on outreach and coordination is available in the Stakeholder Outreach and Communications section.

#1 & #2 are the most valuable to the recyclers. The rest in very high percentages end up being bundled and shipped to China in a nitrous oxide spewing ship. Might as well send it to a local landfill.

We sometimes receive commentaries of skepticism about the value of recycling, especially plastics. Consumers question if materials are actually recycled or if they are worth recycling.

I hope more and more companies jump on board - will make it easier for my residents!

An example of a (presumed) government representative that is supportive of How2Recycle and its benefits for their community.

I think this will REALLY REALLY help the plastic recycling industry. I may know what to recycle, but I bet 90% of the population is clueless and doesn't care enough to investigate.

This comment is an example of general support from a consumer with high recycling effort, but desire to improve the behaviors and recycling motivations of others.

Qualitative Comments Continued

I think this is a great idea - it educates the consumer and also makes the manufacturer think about the full life cycle of their packaging.

Some respondents noted that use of the label indicated a broader sustainability effort within a company while others wanted more information that companies were improving their sustainability alongside this effort.

"...[T]hey care about recycling, like me."

This respondent identified with the participating companies for their recycling ethic.

"I expect package to have appropriate recycling info."

Some expected to see the appropriate recycling information on their packaging.

I find your label very confusing and counterproductive. Recycling labels always carry a NUMBER. That's the main information our city uses to determine what can be recycled....

This comment is an example of the trend of misinformation about "recycling numbers". Comments such as these also illustrate a failure to grasp that recycling is more than just plastics, as well as the documented confusion the RICs create.

Thanks for making recycling easier to figure out.

"Great program...honest...practical...logical."

Many respondents sent words of support and generally positive anecdotes.

Overall, these findings corroborate the pre-launch consumer testing, and support continued implementation of the How2Recycle Label. Focus areas for continued education include RICs, film recycling at retail locations, and how the public can become familiar with their local recycling system.

Communications

Media Coverage

How2Recycle received media coverage in online news outlets, online articles, corporate websites, and printed news and newsletters. The primary focus of these outlets fell in three primary categories: general news sources, sustainability-focused news, other industry news (e.g. packaging news), and directly from participating companies. Examples include the *LA Times*, *USA Today*, *Daily Progress* and NBC 29 (Charlottesville, VA), *GreenBiz*, *Costco Connection* printed and web newsletter, *Packaging Digest*, *Resource Recycling*, General Mills' website, and Seventh Generation's website.

From the period May 2011 through January 31, 2013, How2Recycle was featured in approximately 89 outlets. In order to obtain a fuller grasp of How2Recycle's media reach and publicity value, GreenBlue contracted with Cone Communications LLC to gather information on media impressions, ad value, and publicity value. Cone analyzed 84 online placements for the period May 2011 through January 2013.

Data collected by Cone includes hits and impressions, ad value, and publicity value. Hits, or impressions, equal the number of unique visitors to the website each month. Participation in How2Recycle provides ad and publicity value for companies, endorsers, and partners of the program. Stories include both information on How2Recycle and the partnering companies or other organizations.

The following table analyzes hits, ad value, and publicity value by category of media outlet.

Figure 3: Media Impressions and Value

Media Type	Number of Articles	Hits	Ad Value	Ρ	ublicity Value
General News	9	84,580,207	\$ 845,802.07	\$	2,537,406.21
Sustainability News	26	976,286	\$ 9,762.86	\$	29,288.58
Other Industry News	47	1,390,565	\$ 13,905.65	\$	41,716.95
Company Websites	2	62,004	\$ 426.74	\$	1,280.22
TOTAL	84	87,009,062	\$ 869,897.32	\$	2,609,691.96

Since hits measure number of unique visitors to a website per month, some numbers may be inflated. There is no guarantee that each unique visitor sees the How2Recycle mention or article. Numbers in general news sources are more likely to be inflated than sustainability or industry news, where articles run front and center on webpages. Information above does not include print media placements, which add additional value.

Website Behavior

How2Recycle.info, launched in October 2011, serves as the top destination to learn more about the label and recycling. The following Google Analytics provide information on website hits and behavior on web pages. Unless otherwise noted, the period of analysis is from October 1, 2011 through January 31, 2013.

For this time period, How2Recycle received 21,687 unique visitors, 25,973 total visitors, and 44,945 total page views. Unique visitors are each new individual that visits the website. Total visitors include both first time and repeat visitors to the site. It is a count of total visits to the website. About 83.5% of visits to the site are new visits, and 16.5% are returning visitors. About 85% visit the site from a computer and 15% from mobile devices.

Traffic to How2Recycle.info came from a variety of sources. Approximately 15% came from search pages where consumers searched How2Recycle, found the website in the results, and clicked on the link. About 35% came from referrals, or links on other sites. The top referring

websites are SealedAir.com, Reddit.com, and sustainablepackaging.org. About half are direct traffic where visitors enter the web address in to their browser.

The location of visitors is primarily the United States, at 83%. Small percentages of visitors hail from other countries including Canada (5%), the United Kingdom (2.5%), and Australia (1.5%), and many others (8%). The top countries are also those that GreenBlue interacts with on a regular basis to explore international labels (Canada and Australia) and gain feedback on the UK On Pack Recycling Label.

How2Recycle sometimes requires consumers to find out more information about their recycling options. How2Recycle.info provides various resources to assist consumers, including links to other helpful websites. Limited data is available for traffic to these links. For the time period March 1, 2012 through February 6, 2013, How2Recycle.info received 40,813 total hits (including repeat visitors). For the same time period, 9,108 visitors to How2Recycle.info clicked through to the resource <u>www.plasticbagrecycling.org</u>, which provides information on bag and film recycling. Approximately 22% of all visitors during that time period actively sought additional resources through one of available links.

GreenBlue highlighted the How2Recycle Label though a variety of other methods, including a Facebook page, information table at events including America Recycles Day, and webinars for a variety of constituents.

Resin Identification Codes

Background

Resin Identification Codes, or RICs, denote resin types. SPI developed the codes in 1988 to assist in the identification of resin types for the recycling and plastics industries, and they are now required for use in 39 states. However, RICs were never intended as a consumer communication tool or to make recyclability claims. SPI's intent for the codes was inconspicuous placement that did not influence consumer purchasing or recycling behaviors.⁴

⁴ SPI's information on RICs: http://www.plasticsindustry.org/AboutPlastics/content.cfm?ItemNumber=823

RICs are now part of ASTM International standard D7611/D7611M, Practice for Coding Plastic Manufactured Articles for Resin Identification, developed by ASTM International Subcommittee D20.95 on Recycled Plastics. ASTM clarifies that RICs are not "recycle codes," do not imply inherent recyclability, and should not be in close proximity to environmental claims (including recyclability).⁵ The ASTM Subcommittee is reviewing their design and use⁶.

The Federal Trade Commission (FTC) Guides for the Use of Environmental Marketing Claims, known as the FTC Green Guides, also pertain to RICs. If a RIC is "conspicuously" placed on a package, it constitutes a recyclability claim. If the package type is not accessible for recycling by a substantial majority (60 percent⁷) of consumers, the RIC by itself is a misleading claim. Associated qualifying language to clarify limited recycling is required by the Green Guides, and the How2Recyle Label was designed to satisfy this requirement.

Resin Identification Codes and How2Recycle

GreenBlue actively participates in ASTM conversations as part of D20.95. Our experience and consumer testing show the RICs are confusing to consumers, and our recommendation is to revamp the codes to be more useful to the plastics community while removing the chasing arrows, because of their common misuse.

How2Recycle is compatible with RICs. If communities use RICs to communicate to their residents, and the RIC is placed inconspicuously, their messaging will not conflict with How2Recycle. For example, a resident may see a Check Locally/Limited Recycling category label on a polypropylene yogurt container (a #5 RIC). The label prompts the consumer to check their local system, where they would find clarification on whether the municipality collects polypropylene containers like yogurt cups.

Consumer Confusion

Consumer testing by GreenBlue and other organizations show that the majority of the public does not understand RICs and find them confusing. Interpretations range from a plastics "grade",

⁵ ASTM's standard on RICs: http://www.astm.org/Standards/D7611.htm

⁶ Information on the ASTM RIC process: http://www.astm.org/SNEWS/ND_2010/d2095_nd10.html

⁷ The FTC's current version of the Green Guides is available at:

http://www.ftc.gov/os/2012/10/greenguides.pdf

popularity, number of times it was recycled, to the presumption that a RIC equates recyclability. The How2Recycle survey findings corroborate this confusion.

Resin Identification Codes are not universally found on bags and films based on varying legislation and interpretations of the above guidelines. This leads to some consumers asking for the "recycle number" when they see bags and films with the Store Drop-Off label.

Some consumers completing the How2Recycle survey assume erroneously that GreenBlue has ownership or control of the RICs. However, the How2Recycle labeling system does not supersede ASTM guidelines or state legislation. Rather, one of How2Recycle's primary goals is to ensure compliance with FTC Green Guides, which includes consideration of concurrent use of the RICs for plastics.

Stakeholder Outreach & Communications

State and Municipal Government

Outreach to government stakeholders has been and will continue to be an essential part of How2Recycle. They provide information on local recycling conditions, keep staff attuned to possible impacts of How2Recycle on recycling programs, provide their experiences with recycling education, and provide an outreach avenue for the program. GreenBlue reached out to government stakeholders during development and soft launch, and will continue outreach and collaboration efforts going forward through multiple means.

New York City's Department of Sanitation was an essential stakeholder during the development phase. Their concerns about food and liquid contamination of recyclables led to "Empty and Replace Cap" messaging to communicate the necessity of emptying containers.

The How2Recycle survey is ongoing. Data collected from the survey launch to the present includes feedback from local government recycling coordinators, state government officials, and other government representatives. Survey modifications made in August 2012 allow for collection of additional relevant information from government representatives. This survey, along with our contact form, will continue to be a method of collecting feedback.

GreenBlue spoke at several government facing conferences and events during the Soft Launch. These include the Resource Recycling Conference, Plastics Recycling Conference, MassRecycle 2012 Recycling & Organics Conference & Trade Show, New York State Association of Reduction, Reuse, and Recycling 2012 Recycling Conference, and the Northern California Recycling Association 2013 Recycling Update Conference.

How2Recycle has received endorsements from StopWaste.Org (Alameda County, CA), New York City Department of Sanitation, New York State Association for Reduction, Reuse, and Recycling (NYSAR3), and the State of North Carolina. In addition to endorsement, the NYC Department of Sanitation includes information on the How2Recycle Label on their website.

In 2013, GreenBlue aims to provide more information, gather feedback, and facilitate education efforts. Work has already begun on a strategic partnership with The State of Wisconsin and the American Chemistry Council's Flexible Films Recycling Group to increase plastic bag and film recycling in Wisconsin.

Trade Associations

GreenBlue made multiple presentations to and gathered input from material, brand, retail, and recycling associations. GreenBlue will continue to consult with these important stakeholders.

Other Groups

The non-profit Keep America Beautiful (KAB) is a key partner in the How2Recycle effort. KAB was an early endorser of the label and is currently recruiting participants for a public recycling campaign, which will be an important endeavor to increase recycling awareness.

Next Steps: Full Implementation

GreenBlue's SPC members envision the How2Recycle label becoming the "standard" for U.S. recyclability labeling. Additional participation is needed for consumers to become familiar with and easily recognize the How2Recycle Label.

With the Soft Launch completed, the SPC is currently ramping up marketing and outreach for on-package Participant recruitment, government participation, and consumer awareness.

The Business Plan for the How2Recycle label includes a fee that will cover staff costs for administrative needs, label designs and review, individual package recyclability analysis, data upkeep, and legal considerations. GreenBlue will pursue grants and other means to assist companies with limited means wishing to participate.

The current fee structure was developed in conjunction with SPC members. Participating companies pay a tiered annual flat fee based on their size, as measured by annual revenue. Fee tiers are the same as SPC membership tiers.

Figure 4: How2Recycle Fees

Fee Categories	Fees				
	SPC Members	Non-Members			
One-Time Setup Fee					
(Regardless of size, waived if License Agreement	\$1,000	\$1,000			
signed outright with no negotiation)					
Small Company	\$2,000	\$3,000			
(Annual revenue less than \$10 million)	φ2,000	ψ0,000			
Medium Company	\$3,000	\$4,500			
(Annual revenue between \$10 million - \$1 billion)	ψ0,000				
Large Company	\$4,000	\$6,000			
(Annual revenue exceeding \$1 billion)	φ - ,000	ψ0,000			

Canada

Two scoping meetings have been held in Canada in conjunction with PAC NEXT, and have included a diverse group of stakeholders. GreenBlue has developed mock-ups of dual language labels and is currently consulting with government, recyclers, and retailers. Several companies have indicated that their packages are used in both the U.S. and Canadian markets, and plan to participate once a Canadian label is finalized. GreenBlue's goal is to soft launch in Canada in Fall of 2013.

Acknowledgements

GreenBlue's Sustainable Packaging Coalition developed the How2Recycle Label in conjunction with SPC members and a broader stakeholder group. We'd like to thank the following organizations:

The Design and Development Team: ConAgra Foods Design & Source Productions Environmental Packaging International The Estee Lauder Companies MWV Marks & Spencer Group PLC Mattel, Inc. Product Ventures REI Shikatani Lacroix StopWaste.Org Target U.S. Environmental Protection Agency

Additional Contributors: Association of Post-Consumer Plastics Recyclers (APR) American Chemistry Council's Flexible Films Recycling Group Innovolve SAIC (and the former R.W. Beck) Trex Waste Management

Endorsements: Keep America Beautiful New York City Department of Sanitation New York State Association for Reduction, Reuse, and Recycling (NYSAR3) The State of North Carolina StopWaste.Org (Alameda County, CA)

Special Thanks to:

The On Pack Recycling Label (OPRL) team

How2Recycle is based on the OPRL model developed in the United Kingdom. The British Retail Consortium (BRC) launched OPRL with support from the government-backed Waste & Resources Action Programme (WRAP) in March 2009. The BRC has set up a not-for-profit company to administer the scheme, OPRL Lt. Staff have provided invaluable assistance in the development of the U.S.-based label.

Current Participants: Ampac Best Buy Clorox Costco Wholesale The Esteé Lauder Companies General Mills The Kellogg Company Microsoft Minute Maid (Coca Cola) REI Sealed Air Seventh Generation

