

# Literature Review

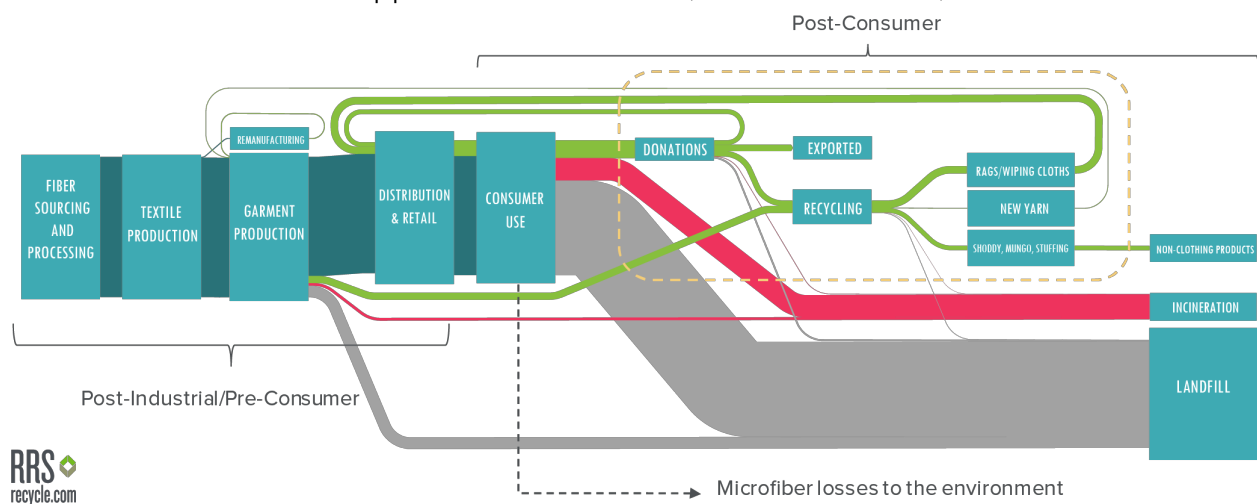
## Stats:

- In 2019, Americans will throw away more than 35 billion pounds of textiles, according to the Council for Textile Recycling. That's nearly double the number from 1999.
- In the U.S. alone, [10.5m tons of textiles](#) go to landfills each year
- Worldwide, less than 1 percent of the material used to produce clothes is eventually recycled, according to an Ellen MacArthur Foundation report, causing an annual loss of about \$100 billion of potentially useful textiles that are burned or buried in landfills
- 40% of Americans either don't have access to or don't sign up for curbside recycling, said Betsy Dorn, director of RSE USA, a sustainable-packaging consulting firm in Orlando
- Only ~20% of the clothing donated to shops like Goodwill and the Salvation Army actually gets sold in their stores, according to the LaPorte County Solid Waste District in Indiana. The rest is typically sold to textile recyclers, at 5-7 cents per pound, with the cash still benefiting the charities
  - "One of the easiest ways to get old clothing into the greater textile recycling stream is donating it, no matter how worn it might be"
  - The remaining recycled fabric goes into other production streams, and may end up as insulation, upholstery stuffing or ingredients in paper products
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## Sustainability Organizations:

- [\*\*Sustainable Apparel Coalition\*\*](#) - a global alliance of retailers, brands, suppliers, advocacy groups, labor unions and academics
  - Launched by Walmart & Patagonia in 2009
  - Brought together 175 members whose companies account for more than 40% of the global apparel industry
  - Goal: to create "an apparel, footwear and home textiles industry that produces no unnecessary environmental harm and has a positive impact on people and communities"

- Building a set of three online tools, known as the [Higg Index](#) that measure the social and environmental impact of brands, manufacturing facilities and products
- ~6,000 factories have provided information about their social and environmental impact to the Higg Index database
- Problem 1: most coalition members have been slow to use the index + there's no evidence they are reducing - not merely reporting - their impact
- Problem 2: none of the social and environmental data being collected is currently publicly available + companies aren't even permitted to release their own Higg Index data
- [Council for Textile Recycling](#) - devoted to creating awareness about keeping clothing, footwear, and textiles out of landfills
- [Product Stewardship Institute](#) - a national, membership-based nonprofit committed to reducing the health, safety, and environmental impacts of consumer products across their lifecycle with a strong focus on sustainable end-of-life management
  - 47 state environmental agency members
  - 100 corporate, business, academic, non-U.S. government, and organizational partners
  - North American focus
- [Resource Recycling Systems](#) - 30-year old sustainability and recycling consultancy
  - Textile and apparel flows in the U.S. (from their website):



- [\*\*Massachusetts Department of Environmental Protection\*\*](#) - manages [MassDep Textile Recovery](#) program, among others
  - On-campus recycling initiative: 4 textile recycling boxes placed indefinitely on schools' campuses. Bins are accessible 24 hours a day for community members who want to donate unwanted textiles, everything from clothing and accessories to linens and rugs and stuffed animals
- [\*\*Secondary Materials and Recycled Textiles Association \(SMART\)\*\*](#) - promotes interdependence of the for-profit textile recycling industry segments and provides a common forum for networking, education and advocacy
- [\*\*New York Product Stewardship Council\*\*](#) - works to implement the principles of product stewardship in New York State and nationally

#### Current recycling options:

##### 1. Fashion brands' facilitated recycling:

- **Eileen Fisher:** old garment buyback from customers at \$5/each, recycled materials reworked into new merchandize under the [Renew](#) brand (aka "upcycling"), which is advertised as "lightly used clothing"
  - The Renew program also conducts scientific research on fiber wear and clothing-construction techniques to generate performance data (e.g. how well a particular material holds up)
- **Patagonia:** [Worn-Wear program](#) - customer education tours to U.S. college campuses, ski resorts and international locations + customers buy "certified, pre-owned" Patagonia gear at discounted prices online
- **H&M Group:** drop off of unwanted textiles of any brand and in any condition at an H&M / Monki / & Other Stores locations to get rewarded with a voucher
- **UNIQLO:** drop off clean, gently used UNIQLO clothing at any UNIQLO store in the designated RECYCLE BOX, and they will work with local partners to provide family in need with cloths.

<https://www.uniqlo.com/us/en/special/sustainability/refugees/recycle/#prettyPhoto>

##### 2. Internet-only sales platforms sponsored by traditional thrifts such as Goodwill and the Salvation Army:

- [ThredUp](#) - world's largest online secondhand shopping destination

3. Clothing-rental companies:

- [Rent the Runway](#)

4. Uniform-heavy corporate players' initiatives:

- Airlines such as Southwest, [Jet Blue](#), [Delta](#) and [KLM](#) are recycling uniforms, blankets and cushion fabrics, which are turned into totes, luggage tags and stuffed animals
- Many airlines partner with [Looptworks](#), a Portland-based business that upcycles or repurposes abandoned, pre-consumer and post-consumer materials into limited edition products

5. Campus-based non-profits:

- [Post-Landfill Action Network](#) - promotes plastic-free campuses, food recovery and composting programs, efforts to salvage items students discard when they move out at the end of the year and campus thrift stores
  - chapters at ~100 universities across North America

6. Local players (Washington state):

- [Threadcycle](#) - a public education campaign of King County and Seattle Public Utilities
  - Pick-up and drop-off [options](#)

7. [Give Back Box](#) - provides vendor services to retailers and charities

- Reuse of online shipping boxes or any other cardboard box
- Prepaid shipping label
- Partnered with Amazon, REI, Banana and many other retailers
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Press:

- Seattle Times: [Fashion brands create programs to recycle, repurpose clothing](#) (September 2018)
- The Guardian: [Despite the Sustainable Apparel Coalition, there's a lot you don't know about that T-shirt](#) (June 2006)

# King County System Research

## Post-Consumer Textiles: LinkUp Report 2014/2015

Page 10: Resident Behaviors, Attitudes, and Perceptions

Page 23: [Post-Consumer Textiles Value-Chain graphic](#)

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## Consumer Recycling Behavior and Awareness Profile

(Survey from 2013)

"An overwhelming majority of respondents (82%) said they would increase the amount of textiles donated, even when in poor condition, if they knew that condition was not an issue."

## Threadcycle

A public education campaign of King County and [Seattle Public Utilities external link](#).

"Give *all* your clothes, shoes, and linens for reuse or recycling."

**Damaged clothes and linens aren't garbage anymore.** Up to 95 percent of the clothes, shoes, and linens thrown in the garbage could have been reused or recycled.\* Many local organizations want **all** your clothes, shoes, and linens for reuse or recycling – **even damaged items** – in any condition except wet, mildewed or contaminated with hazardous materials.

### **Thrift stores, drop boxes, and others want it all and they make it easy**

In the past, thrift stores, drop boxes and collection sites only accepted "gently used" items. But markets have changed, and now many accept items that are stained, holey, or damaged, or "singles" of items that are normally paired, such as shoes, socks, and gloves – as long as they are not wet, mildewed, or contaminated with hazardous materials. Some are reused, and some get recycled into new products.

[Organizations that accept all clothes, shoes, and linens](#) throughout Seattle and King County are easy to find. ...even items that are stained, holey, or damaged. There are many places to give: collection boxes, thrift stores, and home pickup services. [See listings below](#).

# Washington State Initiatives

## [Washington State Recycling Association](#)

### [Zero Waste Washington](#)

#### **Washington Recycles Every Day (WRED) event on October 30 at REI**

[The Shirt Off Your Back - The State of Textile Recycling, Reuse, and Repair Today](#)

## Life-Cycle of Secondhand Clothing

<http://www.weardonaterecycle.org/images/clothing-life-cycle.png>

### [Recycle Colorado Webinar - Methods for Effective Residential and Stakeholder Outreach/Engagement](#)

October 31, 2018 | 12:00 to 1:15 PM PST

Hear results on effective outreach / engagement approaches that can be applied in your community. The webinar will cover surveys and sampling basics; focus groups, approaches for effective stakeholder engagement; ways to make your residential outreach more effective (including social marketing).

#### **[Complied by Phecda]**

To build on "Consumer Recycling Behavior and Awareness Profile" findings some ideas on how might we address feedback on issues that would "motivate [Residents] to donate more clothing, shoes, or household linens.

#### **Donation bin/drop box closer to home (What if we created a map that compiles all donation dropbox locations)**

King County Solid Waste Division - Where to give

<https://kingcounty.gov/depts/dnrp/solid-waste/programs/ecoconsumer/threadcycle/threadcycle-locations.aspx>

Big Brothers Big Sisters Puget Sound - Dropbox Containers

<https://www.google.com/maps/d/u/0/embed?mid=1DtxlckVpOJGpF1T0QPaZcYTat0bcEhcQ&ll=47.55952665234208%2C-122.21994003539817&z=10>

Goodwill Donation

<https://www.goodwillwa.org/donate/locations/>

Big Blue Truck

<http://www.bigbluetruck.org/content/collectionlocations>

The Salvation Army

[https://westernusa.salvationarmy.org/usw\\_thq/location\\_search?location=98115](https://westernusa.salvationarmy.org/usw_thq/location_search?location=98115)

Goodwill

[https://seattlegoodwill.org/locations?utf8=%E2%9C%93&location=&location\\_type\\_ids%5B%5D=0&location\\_type\\_ids%5B%5D=2&location\\_type\\_ids%5B%5D=0&location\\_type\\_ids%5B%5D=0&location\\_type\\_ids%5B%5D=0](https://seattlegoodwill.org/locations?utf8=%E2%9C%93&location=&location_type_ids%5B%5D=0&location_type_ids%5B%5D=2&location_type_ids%5B%5D=0&location_type_ids%5B%5D=0&location_type_ids%5B%5D=0)

ValueVillage

[https://stores.savers.com/search?vertical\\_tabs%5Bselection%5D=tab\\_1&q=98115&op=Find&site=savers](https://stores.savers.com/search?vertical_tabs%5Bselection%5D=tab_1&q=98115&op=Find&site=savers)

US Again

<http://www.usagain.com/find-a-collection-bin>

You can also get a collection bin

### **Receive information about how to schedule donation pickup**

Donation Town - Free pickup for salvation army

<http://donationtown.org/washington-donation-pickup/seattle-wa.html>

### **Acceptable items**

<https://kingcounty.gov/depts/dnrp/solid-waste/programs/ecoconsumer/threadcycle/threadcycle-acceptable.aspx>

Research Paper

Consumer Textile Recycling as a Means of Solid Waste Reduction

<https://onlinelibrary-wiley-com.offcampus.lib.washington.edu/doi/epdf/10.1177/1077727X99281001>