

Textile Waste Audit Report



Figure 1. Group Photo at GreenWaste Audit (participants from CPSC, GreenWaste, City of San Jose, Goodwill Silicon Valley)

CalRecycle identified textiles as the fifth most common material in California’s single-family residential disposal waste stream. In 2023, the California Product Stewardship Council (CPSC) worked with GreenWaste located in San Jose for a textile demo and facility tour. GreenWaste diverted textiles for the purpose of the audit. CPSC used sewn-in garment tags for initial sorting into the following four groups: cotton, polyester, cotton-poly blend, and mixed. Garments were randomly selected from each of the categories and were recoded both based on their sewn-in garment tags and the results from being scanned by the BASF trinamiX device.

Results and Analysis

Garments in all categories were observed to be moderately soiled with dirt, with an overall average soil level of 2.8 out of 5, with an average of 48% of materials containing stains. This indicated to CPSC and GreenWaste that cleaning would be necessary for effective reuse and repair/redesign, but materials were recyclable as-is.

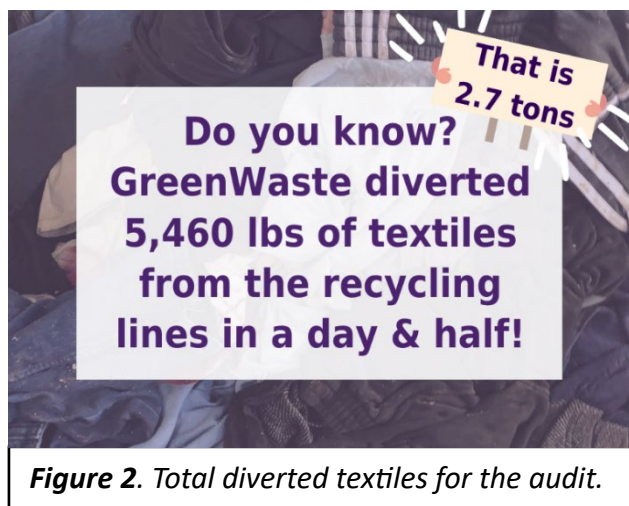


Figure 2. Total diverted textiles for the audit.



Figure 3. Device used by CPSC during the audit.

High levels of denim were observed which has a high market value. According to desk research, the price of raw post-harvest cotton is 80-85 cents per pound in August 2023 and the price of raw polyester fabric is around \$1 per pound in 2023.

Dozens of brands were recorded, with the top three brands being Adidas, Dockers, and Levi’s. For the purpose of reuse and diversion from the recycling line, the majority (87%) of discarded items were found to be repurposable and 35% resellable and 42% repairable.

Fifteen garments from each category of sorted garments were chosen for a detailed audit to compare a manual audit to an automated one. The analysis indicates an inconsistency between label tag information and scanned data, likely stemming from inaccuracies on the label tags and the potential technical or user-related issues with the device. With many devices entering the market, performance of each will improve rapidly.

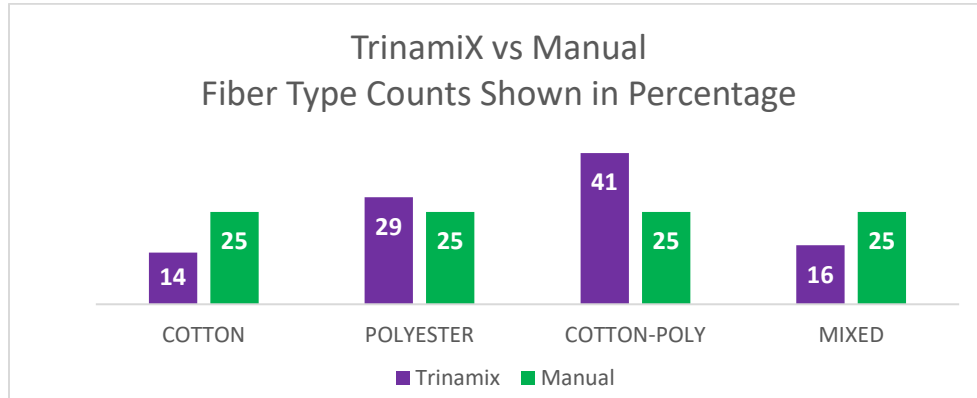


Figure 4. Comparing Fiber Type Counts: Scanned Data vs. Manual Audit with Label Tags

Recommendations:

<p style="text-align: center;">REUSE AND RECYCLE</p> <ul style="list-style-type: none"> ✂ By sorting and scanning textile waste, you can find a high level of reusable and recyclable products. Sorting textile waste stops products from unnecessarily entering the waste stream and can become an income stream. 	<p style="text-align: center;">EXPAND EDUCATION</p> <ul style="list-style-type: none"> ✂ Educate the San Jose community on reducing textiles in the recycling stream and on reducing textile consumption overall. 	<p style="text-align: center;">Forge Partnerships</p> <ul style="list-style-type: none"> ✂ Partner with Goodwill for special curbside collection days. ✂ Partner with cities for repair and upcycling opportunities, such as mending workshops or design schools. ✂ Partner with brands, recyclers, and NGOs looking to receive textiles for recycling.
<p>SUPPORT POLICY CHANGE</p> <p>SB707 (Newman) focuses on reuse and repair of unusable textiles. The proposed legislation, supported by GreenWaste, holds garment producers accountable for offering repair and recycling services for garments when they are no longer wanted by the consumers using the “Expended Producer Responsibility” model. Its global precedent-setting repair component will support California’s local garment businesses, including washing and upcycling businesses, and bring circular manufacturing jobs to the state. California’s network of thrift and secondhand businesses will be utilized to collect unwanted textiles for sorting and recycling. The proposed program will incentive more brands and retailers to offer repaired, upcycled, or recycled garments.</p> <ul style="list-style-type: none"> ✂ Actively support SB 707 in 2024 as the bill progresses closer to passage. ✂ Introduce a local textile recovery ordinance using one of CPSC’s draft models. 		