

Developing a Water Footprint Methodology for Everlane's Supply Chain that is Adoptable by Other Apparel Companies

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OBJECTIVES

- Develop a replicable water footprint methodology to help Everlane calculate and reduce its water impact across its supply chain and test it using their top-selling product.
- Gain an understanding of the environmental, and potential social, implications of Everlane's water footprint, particularly in water-stressed or water-risk areas.
- Share an adoptable water footprint methodology with the apparel industry to support other companies in understanding their water impacts and risks.

SIGNIFICANCE

With a continual increase in urbanization and industrialization, the global water supply is suffering. Access to clean, healthy water is a basic human necessity, yet regions of water scarcity have developed². It is crucial to examine water usage within the textile industry in particular, as they rank among the top-ten water-consuming industries¹. Water consumption in the apparel industry is largely attributed to textile processing, both mechanical and chemical, and varies depending on the textiles used. A unit producing 20,000 lbs/day of fabric consumes 36,000 L of water¹. Additionally, agricultural irrigation is a major source of global water consumption, and agricultural processes, such as cotton production, are an integral part of apparel production⁸. Cotton is used in 40% of all clothing and is the most water-consuming area within the apparel supply chain². Overall high water consumption leads to water becoming inaccessible in other parts of the world, leaving vulnerable communities at more risk of water scarcity². Both the environmental and social impact of water usage throughout the entire supply chain should not be neglected. With a rise in clothing consumption levels in tandem with a rise in environmental consciousness, companies that invest in sustainable processes will strengthen their clientele². According to Forbes, the overall awareness and transparency of water impacts in the fashion sector is low³. Out of 62 companies that provided data for the CDP, only one in ten industries were aware of their water impact across every stage of the supply chain³.

This project aims to improve water footprint analysis by creating a replicable water impact methodology that can be applied to global supply chains across the fashion industry. To do this, both the water consumption and the water withdrawal of Everlane's supply chain will be quantified to get a value for overall water usage. Water withdrawal can be defined as, "water diverted or withdrawn from a surface or groundwater source" while water consumption can be defined as, "water use that permanently withdraws water from its source, that is no longer available"⁹. By successfully creating a methodology to measure the water footprint of Everlane's global supply chain, this project aims to offer an external facing methodology to improve overall water risk awareness across the apparel industry.

BACKGROUND

This project will be conducted remotely by students in the Santa Barbara area, however the client, Everlane, is a clothing brand based in San Francisco, California. Everlane was launched in 2011 with an initial focus on creating wardrobe basics with a radical awareness in price transparency, at a time when apparel supply chains were not widely visible to consumers. Everlane's founding tenant of radical transparency informs their decisions to build a business that creates products with the least impact on people and the planet, while taking accountability for their outputs. Today, their mission is to empower people to live their best lives with the least impact on the planet and leave their industry cleaner than they found it. The three pillars that guide their social and environmental efforts are Keep Earth Clean, Keep Earth Cool, and Do Right By People⁵. Combined with their collaboration with NGOs and strategic industry experts, the pillars have helped the company set data-based, measurable goals and help verify their progress. Creating a water footprint will help them make quantifiable efforts towards their Keep Earth Clean pillar and provide them the needed steps to create trackable goals towards water reduction. It is their hope that the final methodology will help them identify materials in their supply chain that are water intensive and ultimately help them prioritize materials and processes that inherently use less water to create or find alternative processing methods or partners to produce material alternatives with reduced water impacts.

EQUITY

Everlane recognizes that the textile industry is water-intensive and acknowledges that climate change is only intensifying the impacts of water stress and scarcity on communities around the world. Currently, there is not a system that measures companies' impacts on areas of high water stress. Across the apparel supply chain—from farm-level irrigation to dye houses and wash houses, wet processing of yarns and materials, and finished goods manufacturing—the textile industry is water-intensive. The integrity of the world's freshwater supply is crucial to the well-being and existence of all living beings. Everlane recognizes that some regions of the world are under varying levels of water stress and scarcity, therefore decreasing water-use and hazardous effluent levels remains a key priority for them moving forward.

Creating a water footprint methodology will support water-reducing practices and technologies across their supply chain, allowing them to prioritize areas of high water stress. Everlane intends on sharing their methodology with the rest of the industry to empower other companies to track their water consumption and identify opportunities for reductions. The methodology will support companies in prioritizing reductions based on water availability to support regions experiencing water stress, with a keen focus on environmental justice. Everlane recognizes that those who are least responsible for climate change and related environmental challenges are more likely to suffer its most devastating effects both now and in the future. They deem it essential that their environmental action and net zero transition plans center environmental justice by placing the needs of those who are most impacted by climate change at the forefront of their efforts.

DATA

Everlane maintains business partnerships with factories and facilities that have efficiency measures to consume less water, are optimized for water recycling, and manage wastewater concerns through zero-discharge systems. Ideally, this project would be based on 2022 data and Everlane can provide in-depth information from this time period which would be the most comprehensive, as opposed to pulling 2023 data which would not be available until January-Feb 2024. The company works in multiple internal databases (Airtable, WFX, Looker, and in-house built commerce platform) and reports can be pulled from each database to provide comprehensive spreadsheets, either in Excel or .csv format, depending on preference. These reports would provide internal data on the embodied emissions of their

products, materials information, and sourcing details. Students will also have access to Everlane's Product Lifecycle management (PLM) and enterprise resource planning (ERP) which includes the product and material make-up, Bill of Materials, Tier 1 & Tier 2 supplier addresses, and other relevant data. Furthermore, they can provide EIM Jeanologia data which includes specific water, chemistry, and energy efficiency performance for denim and access to EiQ, a social compliance tool with audit results, benchmarked within countries; general risk assessments for social and environmental impacts.

Everlane can also provide students access to run their own reports in Higg Facility Environmental Module (Higg FEM) and Watershed. The Higg FEM provides insight into factory data and consists of annual water consumption at a facility level (80%+ of Tier 1 suppliers, and strategic Tier 2 will have verified data available). Watershed, on the other hand, supplies students with the opportunity to run reports of the emissions data and emissions factors for Everlane's products and materials. In addition, they offer direct access to mill and factory suppliers who can provide information on their internal water usage. This project will require students to leverage tools and reliable global industry averages. These tools will include but are not limited to the WWF Water Risk Filter and CDP Water Security. For any outstanding primary data that they do not already have access to, they would support the process of asking their suppliers to report to Higg FEM, or gather primary data using surveys and direct interviews.

POSSIBLE APPROACHES

- **Water Footprint Framework:** Develop Everlane's water footprint methodology by following the Water Footprint Network's four-phase process⁶ and conducting a literature review.
- **Data Collection:** Utilize data provided by Everlane, tools, and industry averages to solidify methodology with consideration to the environmental and social impacts of water in the apparel industry's operations in water-stressed areas. This includes evaluating the levels of water stress on communities and the effect of water pollutants on the local environment.
- **Water Footprint Analysis:** Utilize the developed methodology to quantify the company's internal and embodied usage for their best selling item.
- **Communicate Deliverables:** Create clear visuals of findings that Everlane can use in external communications to share the methodology with the larger apparel industry. Provide an example of how the methodology can be used by calculating the footprint of their top-selling clothing item.

DELIVERABLES

In addition to the required Bren School deliverables, this group project should result in a:

- Report detailing Everlane's water footprint methodology for their global supply chain, and an example of the methodology in use through a water footprint of their best selling product.
- Recommendation on actionable steps Everlane can implement into its environmental business strategy to minimize its water impact in all areas based on findings.
- Replicable methodology that other companies can use in their global supply chain to estimate their water footprint and strategize ways to reduce their water usage
- Presentation of key findings that can be used externally to share a first-of-its-kind methodology

INTERNSHIP

Everlane's fiscal year does not end until the beginning of February, and as such, the company is still in the process of budget approvals for the next year. Because of this, the company will not have concrete information on the number of internships and the compensation they can provide until after the time that this proposal is due for submission. However, at a minimum, they would be able to provide 1 full-time or 2 part-time remote internships for 10-12 weeks depending on students' needs. At a maximum, they can provide an \$8,000 stipend to support the summer internship.

SUPPORTING MATERIALS

BUDGET AND JUSTIFICATION

It is not anticipated that the proposed project would require additional funding beyond the \$1,000 for project purposes and \$300 for printing contributed by the Bren School.

ACKNOWLEDGEMENTS

We would like to thank Professor Eric Masanet for reviewing this proposal with consideration, and Sean Kerr for supporting the client's project development. We genuinely appreciate the support you each provided to make this project proposal a reality.

LETTER OF SUPPORT

Please see attached document.

REFERENCES

- ¹Basak, Santanu, Pandit, P., Samanta, K., and Samanta, P. Water consumption in textile processing and sustainable approaches for its conservation. *Water in Textiles and Fashion: Consumption, Footprint, and Life Cycle Assessment*. (2019), pp. 41-59. Retrieved January 10, 2023, from: <https://reader.elsevier.com/reader/sd/pii/B9780081026335000038?token=0FAF2FE2B401323879975B6EC4EBD5847BE55B3AF9F78A02A2A579187E343C6586BC874539DC5D4B3A8FC804F01A894A&originRegion=us-east-1&originCreation=20221220141152>
- ²Carolyn, Femina C., and Kumar, Senthil P. Water withdrawal and conservation- Global scenario. *Water in Textiles and Fashion: Consumption, Footprint, and Life Cycle Assessment*. (2019), pp. 61-75. Retrieved December 21, 2022 from: <https://www.sciencedirect.com/science/article/pii/B978008102633500004X>
- ³Aivazidou, Eirini and Tsolakis, Naoum. Water footprint management in the fashion supply chain: A review of emerging trends and research challenges. *Water in Textiles and Fashion: Consumption, Footprint, and Life Cycle Assessment*. (2019), pp. 77-94. Retrieved December 21, 2022 from: <https://www.sciencedirect.com/science/article/pii/B9780081026335000051>
- ⁴Scott, Mike. *Out of Fashion- The Hidden Cost of Clothing is a Water Pollution Crisis*. Forbes Sustainability. (2020). Retrieved December 21, 2022 from: <https://www.forbes.com/sites/mikescott/2020/09/19/out-of-fashionthe-hidden-cost-of-clothing-is-a-water-pollution-crisis/?sh=49863c4e589c>
- ⁵2021 Impact Report: A Decade of Impact and a Kick-off to the Next Ten Years. Everlane. (2021). Retrieved December 21, 2022 from: <https://everlane.s3.amazonaws.com/Impact+Report-2021-Final.pdf>
- ⁶*What is Water Footprint Assessment?* Water Footprint Network. Retrieved December 21, 2022, from: <https://waterfootprint.org/en/water-footprint/water-footprint-assessment/>
- ⁷Adamkiewicz, Iwona, Adamkiewicz, J., Kochanska, E., and Lukasik, R.M. Greenwashing and sustainable fashion industry. *Current Opinion in Green and Sustainable Chemistry*. Volume 38, (2022). Retrieved January 20, 2023, from:

<https://www.sciencedirect.com/science/article/pii/S2452223622001225>

⁸Water Resources. *Total Water Use*. US Geological Survey: Science for a Changing World. (2019). Retrieved January 20, 2023, from:

<https://www.usgs.gov/mission-areas/water-resources/science/total-water-use>

⁹*Water Use, Withdrawal, and Consumption*. Water Footprint Calculator. (2020.) Retrieved January 20, 2023, from: <https://www.watercalculator.org/footprint/water-use-withdrawal-consumption/>

EVERLANE

Group Project Committee
UCSB Bren School Of Environmental Science & Management
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January 27, 2023

Dear Group Project Committee,

This letter confirms Everlane's endorsement of the UCSB Bren School's master's project proposal concerning the development of a water footprint methodology that will be utilized for Everlane's environmental impact-reduction purposes, with the potential to share across the apparel industry for broader reduction efforts.

Everlane is a San Francisco-based clothing brand started in 2011 with a mission to create wardrobe essentials with the least impact on the planet, and to leave the fashion industry cleaner than we found it. Our sustainability strategy and pillars (Keep Earth Clean, Keep Earth Cool, and Do Right by People) are centered around both social and environmental impact areas. We have taken great strides to calculate our carbon footprint since 2019, and have committed to lowering our Scope 1-3 emissions by over 50% by 2030, and achieving net-zero emissions by 2050, in alignment with the Science-Based Targets initiative's (SBTi) 1.5°C pathway. Last year, we published our first Impact Report, outlining the progress we have made in environmental and social responsibility over the past ten years and where we are headed in the future. The next step in our journey to minimize our environmental impacts is to measure and reduce our water consumption, starting with a water footprint analysis and reduction plan.

The Group Project will help achieve our business objective of developing a water footprint methodology to help the brand calculate our water footprint and apply a meaningful reduction plan across our supply chain. Through this work, we also hope to gain an understanding of the environmental, and potential social, implications of our existing footprint, particularly in water-stressed or water-risk areas. The final deliverable will ideally result in a methodology or tool that could be used across our global supply chain, and shared to other companies in the apparel industry to understand their own impacts and risks, and make reductions accordingly. We think this would be the perfect opportunity to examine the environmental and social effects of our industry broadly, while providing key insight into the impacts of our products and supply chain.

If the project is selected, Everlane commits to providing initial data and access to data collection tools, like the WWF Water Risk Filter, Higg FEM, and CDP Water Security Reports. Everlane also commits to offering two part-time paid summer internships, which will provide the students with exposure to the fashion industry and the challenges associated with addressing meaningful environmental reductions throughout a global and complex supply chain. The internship would both further the efforts of the group project and provide students an opportunity to develop professional skills in areas like multi-department collaborations, complex reporting, and project management. This would be a 10-12 week remote internship, requiring no more than 20 hours per week, and with no travel required. At a maximum, Everlane will be able to provide an \$8,000 stipend, which could be given to 1 student (at full-time hours) or split between two students (at part-time hours).

We are excited about the prospect of this proposal and look forward to the possibility of working with Bren students.

Sincerely,



Katina Boutis
Director of Sustainability
Everlane