



Water Footprint Campaign for Clubs or Classrooms

Sofia Leotta & Elisha Gill—Class of 2021

- Inglemoor High School, Northshore School District, Kenmore
- Kent-Meridian High School, Kent School District, Kent

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Problem Statement

The water footprint of the [average American](#) is 2,200 gallons per person a day, the second highest in the world. This level of consumption from both [direct and indirect water](#) consumption patterns is not sustainable, nor equitable, in a world with increasing population and limited freshwater supply.

Impact statement

If we organize a water conservation campaign using water footprint data collected from our Sustainability Ambassadors student leadership community, and use this data to make changes in our consumption habits, then we will be in a stronger position **to lead by example**. From this foundation, we can inform, invite, and inspire other student clubs and classrooms to use their footprint information to turn awareness into action.

Background Knowledge

A water footprint is based on the amount of water used by an individual, place, or household on a daily basis. Our global water footprint is large (see Figure 1). According to [watercalculator.org](#), the United Arab Emirates (UAE) has the highest water footprint at 2,270 gallons per person a day, followed by the United States at 2,200 gallons per person a day and Canada at 1,687 gallons per person a day. When countries engage in inefficient practices, such as meat-heavy diets and fast fashion, their water supply does not keep pace with their growing population. Water is [“only renewable when well managed”](#). Since we are based in the U.S., it is imperative for our future to consider how both personal and collective actions can lower water consumption.

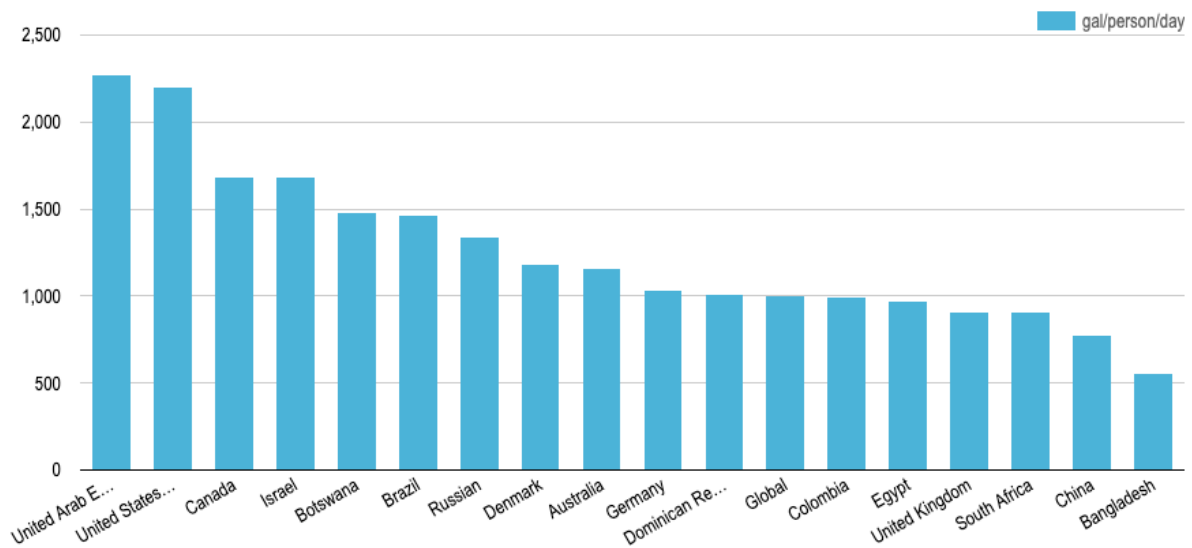


Figure 1

Despite the United States' large population and strong economy, American society has been built upon systems that normalize water *inefficiency*. These systems hinder our mission to rapidly advance for a sustainable future. In America, accountability for the country begins with accountability among individual people and communities.

Much of the water used by U.S. households is wasted. However, wasteful practices can be curbed by greater awareness in our societies. According to the [GRACE Communications Foundation](#), for instance, the average water footprint of a single piece of 6 ounce steak is 674 gallons. On average a [swimming pool takes about 18,000 gallons to fill](#), which equates to about a month of eating steak on a daily basis. Despite beef being a staple in America's dinners and fast food, if consumers knew how much water they could save by going meatless for a day, they could be driven to take a step towards change.

Other examples include reducing water [used outdoors for lawns and gardens](#), or upgrading water efficient fixtures and appliances for indoor water use. According to the [EPA](#), the average family can save \$380 a year by installing more water efficient fixtures and appliances.

Focus of our Impact Project

For our impact project, we are using the [waterfootprint.org](#) calculator to consider how water footprints can inform our own actions, educate members of our households, and bring everyone into a mindset of advancing sustainability. Water Footprints provide numerous markers for accessing sustainability, prompting us to examine water dependence in organizations, water regulations, food & energy security, and the accountability of nations.

Your water footprint consists of both [direct and indirect water](#) use. Direct water use is water that comes out of the pipes and fixtures in your home. Indirect water is the all of the water used in the extraction, production, distribution of a given product. There are three different components of water usage: green, blue, and grey water. The green water footprint is water from plants that is transpired or evaporated, which is relevant to forestry products. Blue water footprints are from groundwater or surface water that evaporate and become part of the water cycle. Grey water footprints examine the amount of pollution that can enter fresh water under specific water quality standards.

We can also break down the categories in which water is being used. These are Indoor Water, Outdoor Water, and Virtual Water. [Indoor water usage](#) is water used inside buildings. Indoor water use could be water from your shower, dishwasher, or washing machine. Outdoor water use relates to lawn care, garden irrigation, pools, and other home water usage outside that can have a surprisingly large impact. [Water used on lawns takes up 60% of all home water use.](#) Lastly, [virtual water](#), also known as indirect water, is the water that is unseen by the consumer. To make a T-shirt, for example, includes all of the water needed to grow the cotton, clean and weave it into the cloth, produce a shirt, ship it, and sell it to you.

How this Project Supports Community Goals

King County promotes water conservation and good water habits among youth and adults:

- King County: [Use Less Water](#)
- King County Green School Program: [Water Conservation & Pollution Prevention](#)

[Cascade Water Alliance](#): Cascade is a municipal corporation comprised of seven municipalities (five cities and two water and sewer districts) in the Puget Sound region that joined together to provide safe, clean, reliable water supply to its 380,000 residents and more than 20,000 businesses. Water efficiency is a critical part of Cascade's water management strategy. Cascade makes the best use of existing water supplies before developing expensive, new sources. Water efficiency helps ensure a safe, reliable supply of drinking water to support our quality of life and economy.

[Water Supply Forum](#): A regional partnership that addresses current and future water supply issues, including supply system resiliency, planning, policy and regulation, and environmental stewardship. Members include Cascade Water Alliance, Washington State Department of Health, Seattle Public Utilities, Tacoma Water, and the City of Everett.

[Saving Water Partnership](#): A regional partnership of water utilities that provides water conservation trainings, audits and rebates to its members including: Cedar River Water and Sewer District; City of Bothell; City of Duvall; City of Mercer Island; City of Renton; Coal Creek Utility District; Highline Water District; Northshore Utility District; Northshore Water District; Olympic View Water & Sewer District; Seattle Public Utilities; Soos Creek Water and Sewer District; Water District 20 (Burien); Water District 45 (Seattle); Water District 49 (Burien); Water District 90 (Renton); Water District 119 (Duvall); Water District 125 (Seattle); and Woodinville Water District.

Identifying Stakeholders - Who cares about this issue? Who needs to care?

GROUP	INTERESTS	GOALS	APPROACH	NOTES
Sustainability Ambassadors	Living a sustainable life for their future	(1) Influence their communities (parents, teachers, siblings) (2) Create a future generation that wastes less water	Water footprint calculation of themselves and their household	SA is the community we are starting with
Green Team Students	Living a sustainable life for their future	(1) Influence their communities (parents, teachers, siblings) (2) Educate school and community members regarding the waste of water	Similar to above + Posting on school social media and hosting workshops to spread awareness.	Similar to SA Stakeholder above
Parents	Saving money on their water bill	Lower household water footprint	SA will approach their parents and make this a household effort	Will be influenced by SA
Teachers	Teaching their students to be actionable and aware about water use	(1) Educate students on water usage to create a more aware generation 2) Integrate problem based and interdisciplinary learning with water topics	Invite to water labs by SA	Will be influenced by SA and labs Will influence their school curriculum
Green Jobs Professionals	Wanting a more diverse and community-known workforce	Influence a more diverse and well-known workforce in the water sector by showing water jobs.	Invite to Green Job labs and SA Coaching network	
SA Coaches	Using their expertise of water systems to support student work	(1) They equip students with the knowledge to create action centered around saving water for generations (2) Find empowerment from current youth action and organizational power	Reporting at All Hands Meetings	
Grant Partners	Advancing their goals in a problem area such as educating and creating action around water.	Make sure their funding is being used properly	Monthly, quarterly, or yearly reports	
SA Learning Partners	Developing intersectionality between SA water goals and their organizational water goals	Depends... (1) influence clean water (2) promote services to potential customers	Social media reports and yearly SA footprint report	Current SA Partners: Cascade Water Alliance, Tacoma Water
City, County, State, and Federal Government	Maintaining economic and physical peace in their area Improving their region	(1) Stop unease by protest and boycotts (2) Advance goals ahead of other cities, counties, states, and countries	Bring Water Footprint and community change data to their open meetings	Shared interests in water conservation

Project Procedure

The steps you will take to implement the solution you propose.

STEP ONE: Record **baseline information** of each person's water footprint

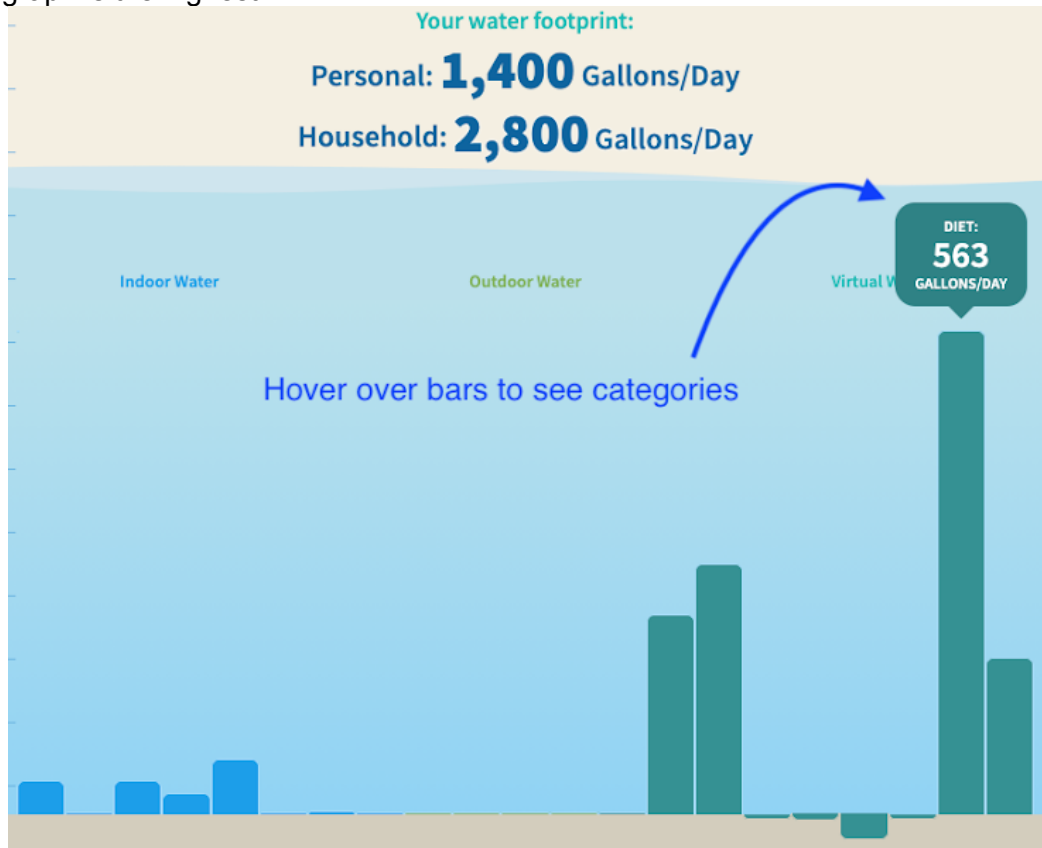
- Use the watercalculator.org to determine team water footprints.
- Track your data — Strategize by using our [Water Footprint Tracker Template](#) or a survey with questions similar to [our Google Forms Survey](#)

Here are questions you can ask your team to report based on the footprint calculator results:

1. **What are your personal and household water footprints? (Gallons/Day)** After you complete the Water Footprint Calculator, these results will pop up.



2. **Which category are you using the most water in?** Scroll down from your initial numbers to see a graph outlining your water usage by each category. Which bar on your graph is the highest?



3. What actions are you taking to reduce your water footprint?

Action Examples:

- Taking shorter showers
- Talking to my family about low-flow shower heads, faucets, or toilets
- Taking fewer baths
- Filling the dishwasher full before running it
- Reducing bathroom and kitchen faucet run time
- "Letting it mellow" in the toilet
- Talking to my family about energy-efficient appliances
- Adding a greywater system to my house
- Reducing watering my lawn or garden
- Landscaping with plants that don't require much water
- Getting a rain barrel
- Using a self-service car wash instead of a garden hose or drive-through car wash
- Driving fewer miles per week
- Talking to my family about green power electricity programs (solar, wind, ect.)
- Buying fewer non essential items
- Recycling more paper
- Recycling more plastic
- Recycling more bottles/cans
- Donating or re-using more clothing, sheets, blankets and towels
- Eating less meat and animal products

STEP TWO: Interpret group data set

- Using digital spreadsheets, choose some or all of the following group identifies to track:
 - a. Average Personal Water Footprint
 - b. Average Household Water Footprint
 - c. Group Total Water Footprint
 - d. Group's Highest Water-use Category
 - e. Group's Actions for Footprint Reduction

STEP THREE: Take *personal action* to reduce your water footprints

- Hold yourself and your team accountable for reducing your water footprints. Remember — it starts with you!
- Recollect data frequently to after track group behavior changes

Having trouble getting all of your group members to do the water footprint calculator? Check out these **group campaign strategies!**

- Send brief communication frequently.
- Model the way by sharing your actions, progress, and excitement.
- Call out numbers. Who's done it, who is left? Which teams are 100% done?
- Develop shared purpose through full-group conversations and cross-trainings.
- Empower other student leaders to take charge by working with a smaller group.
- Follow-up with specific people to encourage engagement.

STEP FOUR: Tell *impact stories* to key stakeholders.

Here are our ideas to prompt your storytelling:

- Create some visual comparisons using your water consumption in relation to things people would easily recognize. For example, ask the prompting question, “How much water do my daily choices equate?”
 - a. How many bathtubs could be filled by a week of eating hamburgers every day?
 - b. How many bathtubs could be filled by the production of my sweatshirt?
 - c. How many swimming pools could be filled by a drive to my grocery store?
- Share baseline data collected in “STEP TWO”
 - a. Group's Average Personal Water Footprint
 - b. Group's Average Household Water Footprint
 - c. Group's Total Daily Water Footprint
 - d. Group's Highest Water-use Category
 - e. Group's Actions for Footprint Reduction
- Reveal water footprint reductions over the span of months or years
 - a. Group's Average Personal Water Footprint
 - b. Group's Average Household Water Footprint
 - c. Group's Total Daily Water Footprint

Here's a sample report from our campaign with 48 student Ambassadors

Sustainability Ambassadors

Water Footprint Impact Campaign



Leading By Example: *We aim to...*

1. Organize a water conservation campaign using data collected by our Sustainability Ambassadors community using the [water footprint calculator](#).
2. Use data to make changes in our consumption habits, allowing us to be in a stronger position to lead by example.
3. Share our stories to stakeholders through strategic content marketing.
4. Invite other teams, clubs, groups, and classrooms to use the design of our Impact Project to facilitate their own team campaigns.
5. Track and communicate collective impact.

Building the Story: *Our process was defined by...*

1. Collecting data through a [Water Footprint Google Form](#)
2. Launching a Water Footprint Campaign among ambassadors
 - a. Building momentum at Bi-Weekly All-Hands Meetings
 - b. Refining team leadership at Bi-Weekly Leadership Meetings
 - c. Developing shared purpose through informal texting and conversations
 - d. Tracking progress through frequent emails
 - e. Celebrating momentum and success, sharing data
3. Using our experience to develop an Impact Project and resources that can be adopted by other teams, clubs, groups, and classrooms.

Data Collection Results: *What does the data tell us?*

1. Total daily water footprint for all SA families = 289,075 gallons/day
2. Total daily water footprint for individual SAs = 74,707 gallons/day
3. Average daily water footprint per individual SA = 1,556 gallons/day
4. Average daily water use of a [typical American](#) = 2,200 gallons/day
5. 71% of Ambassadors are using most of their water in the [food](#) category

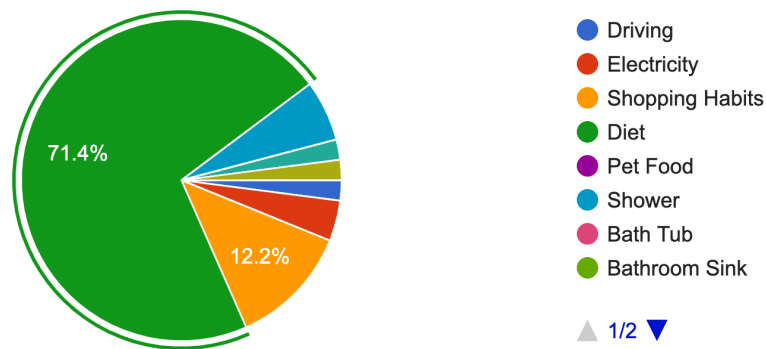
What actions are Ambassadors taking to reduce their water footprints?

- 78% - Taking shorter showers
- 61% - Eating less meat and animal products
- 59% - Recycling more plastic

Data Display from the Initial Survey

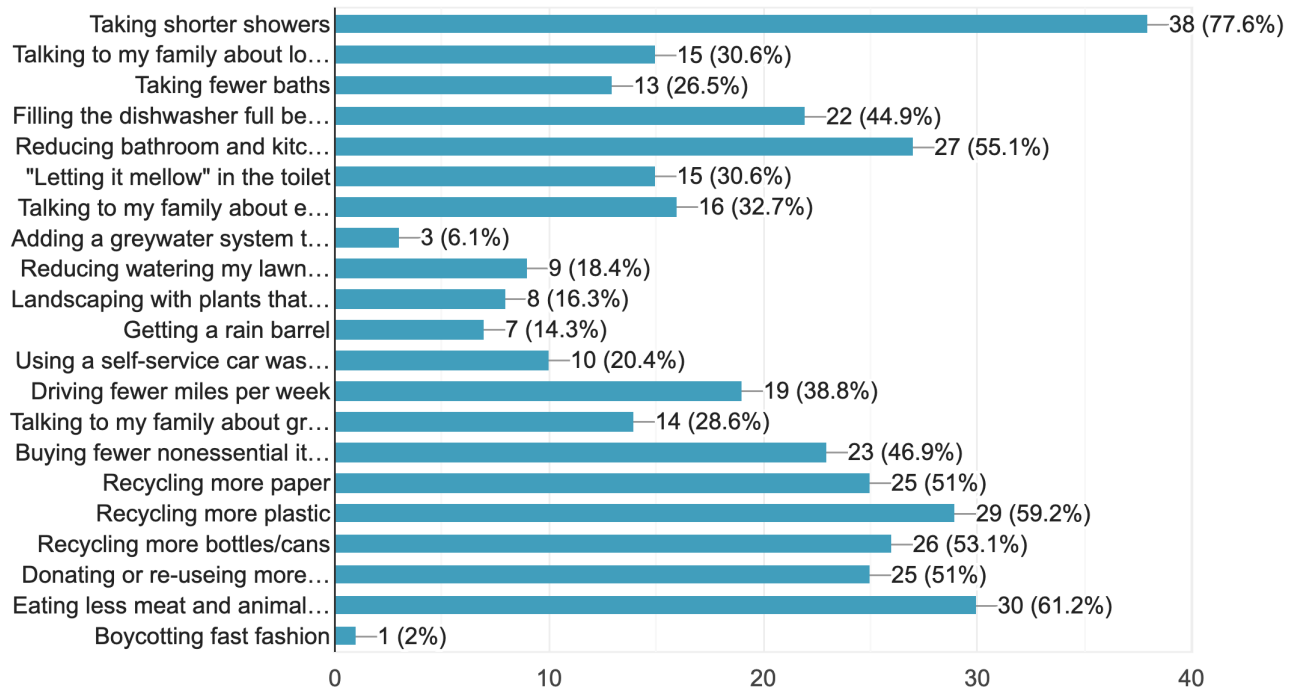
Which category are you using the most water in?

49 responses



What actions are you taking to reduce your water footprint?

49 responses



Reporting to Stakeholders

Communicate your impact to important stakeholders through a variety of platforms and content

Here are some ideas to kick-start your storytelling:

- Infographic
- Video
- Tiktok
- Instagram/Facebook individual post
- Facebook neighborhood group post
- Written report
- Newsletter article
- Letter to the editor
- In-person presentation
- City council meeting public comment
- Google Sites website
- Virtual presentation
- School announcement
- Classroom announcement
- Family discussion

For further examples, see Sustainability Ambassadors' Actions Items under "Reflection and Next Steps"

Reflection and Next Steps

While conducting a Water Footprint Campaign within Sustainability Ambassadors, we realized the value of making individual progress towards sustainability within a group setting. If all members of our team are aware of their personal water usage habits, we can start to prevent unnecessary water waste together by making strategic yet simple day-to-day changes.

Moving forward, Sustainability Ambassadors will broaden our Water Footprint Impact Project by starting internally and building up to an external influence. We will share strategies and progress towards reducing our own ambassador water footprints. These experiences put us in a stronger position to lead by example. We can then challenge clubs, classes, and Green Teams to join us in reducing their water footprints using the design of our Impact Project.

Sustainability Ambassadors Action Items:

- Share data at Cross-trainings with Ambassadors.
 - Bi-Weekly All-hands
 - Leadership Meetings
 - Teacher Labs

- Coordinate with the Communications Team for Content Marketing opportunities.
 - Instagram/Facebook Posts
 - Short Videos
 - Podcast Episodes
 - Virtual Presentations

- Provide both verbal and written reports to city councilmembers, green jobs professionals, teachers, SA coaches, SA learning partners, and other SA stakeholders.

- Share the story at End-of-Year SA Impact Report.

- Publicize our process through Sustainability Ambassadors' website.
 - SAWG Blog
 - Impact Projects Tab

- Invite other teams, clubs, groups, and classrooms to use the design of our Impact Project to facilitate their own team campaigns.

Similar Impact Projects:

- [Money Down the Drain](#)