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Disconnect Your Downspout

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1. Impact Design

Impact Statement - If I redirect water into the ground that would have otherwise gone through my downspout and into stormwater pipes, then I will reduce polluted stormwater and improve the health of my watershed.

Community Alignment	
Group	Goal/Action
King County Water and Land Resources Division - Protects public health and safety of county residents through natural resource management.	Encourages residents to do their part to reduce stormwater pollution and Combined Sewer Overflow (CSO) events through <u>simple action steps</u> and educates them on the <u>science of stormwater</u> .
City of Kirkland	The Kirkland Sustainability Master Plan - Many municipal plans relate closely to the central goal of water conservation, including a section on water efficiency in buildings/infrastructure and a section on sustainable urban waterways and conservation in natural environment/ecosystems

Procedure - Steps for implementation!

1. Measure my roof to collect the amount of rain that falls on it annually. [How many square feet is it?](#)
2. Check out the gutters on my house or apartment building. Where do they drain to? Are they working properly or is there a blockage?
3. Do some research. What is the process for [disconnecting my downspout](#)? Great [video from the City of Portland!](#) More help: [EPA Downspout Disconnection](#). Can I [harvest rainwater](#) and reuse it?
4. Talk with the owner of the building (parents? apartment manager?) about the process and tell them about the impact of stormwater on the environment. Walk them through the process of downspout disconnection.
5. Disconnect that downspout!
6. Check out my neighborhood on the city's [stormwater pipe maps](#) and [CSO event tracker](#) to see the state of the water near me.
7. Use the data tracking section to report how much water I will have diverted from the stormwater system in an average year. I'll then communicate my impact to my stakeholders.

2. Impact Data Tracking - Quantify your impact!

By looking at my downspouts, I discovered that all drain properly and all but one are disconnected, but they cover a large area.

Rain Harvesting Formula: Roof Area **90** (ft²) X Yearly Precipitation Amount **4.3** (in) X 0.623 = 241.101 (number of gallons collected/redirected) Find out the average annual precipitation rate [for my city](#).

$$2793 \text{ sq ft.} \times 43.63 \text{ in. of rainfall} \times 0.623 \text{ gal/(in. sq ft.)} = \underline{\underline{75,918 \text{ gallons}}}$$

By disconnecting and redirecting my downspout, how much stormwater per year am I infiltrating into the ground and keeping out of my watershed? APPLY FORMULA: **2793 square feet** that drains into my one downspout x **43.63 inches of rainfall** * **0.623 gallons per inch*square foot** that falls on this area in one year = **75,918 gallons** of stormwater infiltrated into the ground rather than storm drains.

By disconnecting my downspouts, I will be redirecting **75,918 gallons** of water per year into the ground and away from storm drains.

3. Impact Storytelling - Share your data with who needs to know! See more [tips](#)

Think on 4 scales of stakeholders... Family, School, Community, and Aligned Groups

Stakeholder	Interests	Approach
Family — Younger Brother	Protecting Puget Sound and Sustainability	Conversation: Show my brother the process that I went through, the impact that it's had, and show videos and real-life examples of disconnected downspouts (on our property).
School — Environmental Practices Group	Sustainability	Presentation and Assignment/Project: Create an assignment for the environmental sciences and other science classes that either educated the students on the effects that sewage and downspouts have on the environment and Puget Sound, or a project that has them disconnect downspouts themselves and track their progress.
Community — Kiwanis and Key Club	Protecting Puget Sound and Sustainability	Presentation and Volunteer Opportunities: I will put together a presentation to present to Kiwanis and Key Clubs across LWSD and other districts with 2 goals. The first is education about the impact of downspouts and sewage on the Puget Sound/environment, and the second is to create volunteer opportunities for individuals, maybe the elderly, to sign up to have their downspouts disconnected and have students come and help out.
Aligned Groups — City Council	Promote rain gardens, awareness, sustainability, and protecting the Sound	Public Comment/Meeting: Contact them, provide a youth testimonial, as well as data, a report, and storytelling involving my experience with downspouts.

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