From Awareness to Action: How Community-Based Social Marketing Can Enhance Storm Drain Markers and Engage Communities

Ashlyn McGarrah*, Program on the Environment, University of Washington Site Supervisors: Ry Yahn and Susan Harper, Seattle Public Utilities Faculty Advisor: Nancy Lee, Department of Marketing and International Business, University of Washington





Background

- Stormwater runoff impacted by individual behaviors (See fig. 1) is a top source of pollution in Puget Sound
- Polluted stormwater impacts the health of humans, wildlife, and the natural ecosystem
- Storm drain markers help prevent these behaviors by bringing awareness to the drain
- Frameworks like community-based social marketing, emphasize direct contact with people and should be applied to improve the effectiveness of markers



Figure 1: Diagram of pollutants that enter waterways through drains as a result of stormwater runoff.
Retrieved from: City of Gardner

Research Questions

What marking strategies can be employed to spread awareness around polluting behaviors?



What are some best practices for evaluating these marking strategies through a community-based social marketing lens?

Internship and Methods

- Interned with Seattle Public Utilities in their Stormwater Education and Outreach Team
- Interviewed 11 stormwater experts
- Conducted a literature review of community-based social marketing techniques and successful campaigns

Results

Common Marker Types





Figure 2: Painted stencil with the message "Dump No Waste. Drains to Puget Sound"; stenciling in Seattle originally began in the mid-1990s (Ry and Harper, SPU, March 10, 2023)



Figure 3: Plastic curb medallion with the "Puget Sound Starts Here" campaign logo which was introduced, and bulk ordered by STORM group in 2012 (Bill Malatinsky, SPU, March 14, 2023)



Figure 4: Mural of an octopus painted by Jacquelyn Speare in Keyport that was commissioned by Kitsap County Public Works' stormwater division in 2019 (Kym Pleger, Kitsap County, February 27, 2023)

Community-based Social Marketing Best Practices



Clear Behavior: Should be self-explanatory, and all the information needed for someone to take the appropriate action should be conveyed.



Benefit Highlighted: Should reflect the reasons why your priority audience might be interested in adopting the behavior or what might motivate them to do so.



At Point of Decision: Should be as close as possible to where the action is to be taken.



Community Support: Should be created with direct consultation from community members and reflect the community.



Access to More Information: Should provide access to more education or resources to reduce the impact on waterways.

Takeaways

- Stenciling (See fig.2) scored the highest overall under the community-based social marketing criteria
- This stencil could be greatly improved by integrating the voices of the community and access to more information (See table.1) into the design of the stencil

Table 1: Matrix that evaluates three types of markings: painted stencil, plastic vinyl adhesive, and mural labeled with either a +, \checkmark , or – (in order from highest to lowest score)

Criteria	Stencil (fig.2)	Medallion- Plastic (fig.3)	Mural (fig.4)
Clear Behavior	+		_
Benefit Highlighted	+	-	+
At Point of Decision	+		+
Community Support			+
Access to More Info.	-		-

Significance

- Storm drain markers should continue to be evaluated and further improved by behavior change programs such as community-based social marketing (see table.1)
- Need to test different designs and marker types with an audience
- SPU should partner with social justice and equity organizations or other agencies to bring in community voices



Figure 5: Ashlyn stenciling a drain in Delridge for an event hosted by SPU during Seattle's One Day of Service

Acknowledgments

I would like to thank my site supervisors Ry and Harper, faculty advisor Nancy Lee, cohort, friends, and family. I could not have done this without their help and support!