

Campaign Background, Purpose and Focus

Puget Sound is in trouble. Toxic runoff causes aquatic habitat damage, putting many of our indigenous aquatic species at risk. Most of the pollution reaching Puget Sound comes from polluted stormwater runoff. The purpose of this plan is to protect water quality in Puget Sound and local waterways by reducing sources of pollution. The focus is on increasing adoption of dumpster area best management practices (BMPs) by businesses, to prevent water quality violations. This social marketing plan provides valuable information about the priority audience desired benefits, barriers and motivators and tools that will work to promote positive behaviors for the benefit of the Puget Sound Watershed.

Situational Analysis

Strengths:

- Multi-jurisdictional collaboration and support.
- Internal and regional funding availability.
- Internal and regional expertise. Previous work on this topic has been conducted in the US and in the Puget Sound region.
- Management support (NPDES Permit mandate.)
- Aligns with other NPDES permit mandate to implement a Source control Program for existing Development.
- Recent experience working on successful regional social marketing campaigns, such as Natural Lawn Care and Don't Drip and Drive.
- Strong pathways for communication with haulers and share common goals.

Weaknesses:

- Jurisdictions experiencing budget shortfalls due to COVID 19, resulting in budget cuts across all departments.
- Businesses are under financial pressure due to the COVID 19 Stay at home orders and social distancing restrictions.
- Image of City being a regulator/enforcer not willing to work with public.

Opportunities:

- Water quality is a top priority for the community.
- Lessons learned from previous programs.
- Visibility and resources from a regional program to increase awareness and concern about the issue and influence social norms.

Threats:

- Not a priority for businesses trying to recover and normalize during and after COVID 19.
- Business community may not be aware of problems.
- High staff turnover in certain business sectors.

- May be hard to collect data on behavior change.
- Multiple languages to consider in certain sectors.
- Changes may require financial resources/incentives.

Research and Review of Prior Similar Efforts

Prior to the Dumpster Summit, research was conducted to assess the impact of dumpster issues on local water quality. This research includes:

- Qualitative information/observations from local government experts and consultants conducting business and local source control inspections, including members of the Business Inspection Group (BIG)
- Qualitative information/observations from private stormwater facilities inspectors conducting site visits at commercial businesses (associated with permit required inspections)
- Qualitative information from waste resources/solid waste experts
- Literature review of previous dumpster research and outreach efforts conducted:
 - The City of Bothell - *Dumpster Maintenance Assessment Final Report Prepared Dec. 21, 2016*
 - City of Bellevue - *Bel-Red/Northup Commercial Waste Audit – 2017*
 - City of Federal Way - *Trash Compactors and Dumpsters: Eliminating a Major Source of Stormwater Pollution*
- Dumpster audit data collected and aggregated from six jurisdictions. Audits inspected 451 total dumpsters. Lid status information was collected from 373 dumpsters, container leaking/damaged information was collected from 391 dumpsters, and a dumpster site condition rating was given to 147 dumpsters in Bellevue and Sammamish (2015 – 2019). To view the Baseline Dumpster Data Summary, see *Appendix A*

Other qualitative information:

- Business Inspectors interviewed emphasized that a multi-tier approach that combines a helpful educational intent with a layer of enforcement was the most effective way to create behavior change within the business community.
- Understanding how to establish trust is fundamental. Approaching businesses with educational tools and resource assistance is important. Experience shows that explaining why something matters, and the potential consequences, is far more effective than simply telling a business, they must do something. Also, “selling” source control as a good business practice can increase the businesses’ desire to learn more. Once a business agrees to participate in the program, specialists need to provide value to the business to establish credibility (T. Benson 2016, personal communication, Jul. 28.)
- Having a more extensive educational campaign with a region or sector-wide reach would help to increase the business inspection program’s effectiveness (A. Alfred, A. Peterson, and T. Zuehl, 2016, personal communication, Jul. 28.)
- Challenges cited by both Snohomish and Bothell include identifying which businesses to visit and locating problems. Often, businesses do not realize there may be a problem and might not seek assistance without the specialist pinpointing a problem.

Campaign Strategy Development

From September 2020 through October 2020, 20+ Stormwater Outreach for Regional Municipalities (STORM) member jurisdictions participated in a “Dumpster Summit.” The Summit was funded by the City of Bellevue and facilitated by social marketing expert Nancy Lee. Participating jurisdictions were supported by project lead Laurie Deveraux and a core planning team. Summit participants brought together expertise in stormwater outreach, social marketing, waste resources, and business inspections. During the Summit, participants actively developed five different social marketing strategy teams addressing dumpster area best management practices (BMPs). In between the second and third Summit, participants collected barriers, benefits, and motivator surveys at businesses and multi-family properties. At the conclusions of the Summit, participants agreed to focus on one strategy to implement: closing dumpster lids every time for commercial businesses. Through this effort, participants employed the Social Marketing 10 Step Strategic Planning Model. Step details are outlined below in the *Social Marketing Strategy and Schedule Summary* section of this document.

The Summit's primary goal was to collaboratively develop a Social Marketing behavior change campaign to be implemented regionally by jurisdictional partners across Western Washington. The ultimate outcome of this collaboration is to reduce stormwater pollution to surface waters through social marketing methods that motivate commercial businesses within the NPDES geographic area to keep dumpster lids closed. To view the Dumpster Summit 2020 summary, see *Appendix B*.

The City of Puyallup tried to participate in this summit, however, by the time we became aware of the summit, it was full and we were not able to attend. We have been able to participate in all other regional meetings that focused on implementation and discussions regarding issues and implementation. We have been able to take advantage of the findings/outcomes of the dumpster summit.

Toolkit Development

With many different populations and needs across the NPDES geographic area, the Dumpster Summit Team and the consultant brainstormed a basic toolkit and options for jurisdictions to employ based on budget and commercial business needs. The toolkit was developed and finalized during November 2020 and December 2020. Summary of the toolkit development and testing strategy:

- Review draft toolkit and provide recommended costs/rankings
- Survey Dumpster Summit Team on recommended toolkit items
- Analyze toolkit survey results
- Finalize basic toolkit and toolkit options based on Dumpster Summit Team survey
- Create toolkit collateral materials
- Finalize toolkit collateral materials
- Manage group ordering and distribution of toolkit items

Once the toolkit material concepts are created, the consultant’s Market Intelligence Team will conduct qualitative research through online focus groups to determine which sign and slogan resonates best amongst commercial business dumpster users. The Market Intelligence Team will analyze the users’ responses to inform the final sign and slogan. Once the toolkit is finalized, the consultant will work with the Dumpster Outreach Group (DOG) to plan the 2021 pilot, including timeline development and recommendations for evaluation and implementation. To see toolkit items and tiers, see *Appendix C*.

Regional Implementation

This campaign is designed to be broadly applicable across the region. Participating jurisdictions will be required to implement the basic toolkit package. There are optional toolkit items for jurisdictions wishing to use them as add-ons to the basic toolkit. Basic toolkit items will be tested for effectiveness through traditional social marketing methods through a pilot campaign implementation and evaluation. Partner jurisdictions will be required to participate in a campaign launch meeting to ensure consistent pilot phase implementation and evaluation. Benefits of collaboration and regional implementation include:

- Dumpster lid issues will be elevated regionally across the business community simultaneously
- Social norming and social diffusion of dumpster BMPs will increase behavior adoption regionally
- Products of the campaign will be shared with jurisdictions implementing business inspection and local source control programs to increase BMP adoption
- Lessons learned during the pilot, and full implementation phases will be shared through intermittent check-in meetings and campaign evaluation

During and after the campaign, jurisdictions that participate in the campaign will be asked to track their activities and provide input on the pilot campaign to inform the project evaluation and a long-term implementation plan.

Local Relevancy of the Dumpster Lid Issue

As part of our Local Source Control program we have noticed a trend of dumpsters being left open at many of the businesses. It has been a constant conversation on many visits to commercial businesses to remind the business that they need to keep the dumpster closed and the environmental benefits and issues when the practice of closing the dumpster is not observed. During these conversations, we have noticed the need for additional efforts, incentives, education and outreach in order to reach the businesses and staff that actively use the dumpsters.

Having discussed this issue with the city's IDDE specialist, he stated that he has responded to a number of issues due to dumpster lids being left open and resulted in an illicit discharge. He believes that this could be curtailed by additional effort being placed on this issue through an education and outreach campaign

In order to start to quantify this problem and to show how this is an issue within the City of Puyallup that is worthy of being address through the dumpster outreach program, we performed a windshield survey of businesses in a commercial focused portion of the City. Out of those 28 dumpster locations surveyed 8 of them had open dumpsters. This works out to approximately 29%.

Dumpster Campaign Participation

The City of Puyallup has been in contact with the dumpster group leads, we have been part of the conversation regarding how this group will be helpful in solving a targeted problem we have in the city and have followed along on the progress to date, attending multiple meetings obtaining updates. We have not been able to attend the dumpster summits due to some communication errors and the capacity of the summits being reached. However, we have been working with and plan on working with the dumpster group moving forward. We will be coordinating efforts with the group.

Campaign Implementation

The City of Puyallup is working on getting 2 of the businesses involved in the program, as part of a pilot outreach effort, that were part of the windshield survey. We will be starting this pilot project using the 'Tier 1 toolkit' in Appendix C. We are starting to discuss with the business to see what they will be willing to do to move forward. The plan is to start with a pledge from the Property owners to work with us on this pilot project, allowing us to provide Instruction, talking points with the staff, eventually moving on to adding stickers and simple instructional information at the dumpsters reminding the business of their pledge.

Pilot Phase Evaluation

The evaluation will summarize the pilot campaign results and lessons learned that could improve broad-scale implementation. The evaluation results will be aggregated based on information provided by participating jurisdictions.

Dumpster Behavior Change Campaign



Implementation Timeline Summary



	Complete by	Task
✓	6/2020	Collect data on dumpster area conditions and water quality issues (Step 1 Community Based Social Marketing)
✓	11/2020	Dumpster Summit Implementation, audience barriers, benefits, and motivators research, audience profile research (Steps 1-3 Community Based social marketing)
✓	1/15/2021	Finalize "Strategy and Schedule" documentation (Step 3 Community Based Social Marketing)
✓	1/15/2021	Begin toolkit items development ahead of pilot implementation
✓	4/1/2021	Begin implementing developed strategy (Pilot Campaign Phase, Step 4 Community Based Social Marketing)
✓	1/2022	Evaluate Pilot Campaign and make strategy adjustments to improve outcomes (Step 4 Community Based Social Marketing)
✓	3/2022	Implement campaign strategy to include more businesses (Step 5 Community Based Social Marketing)
☐	2/2024	Compile and document campaign effectiveness data (Step 5 Community Based Social Marketing)
☐	3/31/2024	Finalize report documenting the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy. Include planned or recommended changes to the campaign in order to be more effective. Describe the strategies and process to achieve the results.
☐	4/1/2024-Ongoing	Use results of the evaluation to continue to direct effective methods and implementation of the ongoing behavior change program.

Social Marketing Strategy and Schedule Summary:

PURPOSE	Reduce stormwater pollution to surface waters
FOCUS	Dumpster Lids
PRIORITY AUDIENCE	Commercial businesses within the NPDES geographic area not closing lids
BEHAVIOR	Close dumpster lids every time something is put in the dumpster
AUDIENCE INSIGHTS	
BARRIERS	<ul style="list-style-type: none"> • Full so can't close • Can't reach • Heavy • Didn't think about it
BENEFITS	<ul style="list-style-type: none"> • Reduce pests • Reduce smell • Reduce illegal use • Cleaner look • Keep rain out
MOTIVATORS	<ul style="list-style-type: none"> • Reduce pests • It's against the law • Point out pollution • Reminder to close the lid • Items to make it easier (e.g., stool, hook, handle)
COMPETITION	<ul style="list-style-type: none"> • Not closing the lid <ul style="list-style-type: none"> • Easier • Saves time
INFLUENTIAL OTHERS	<ul style="list-style-type: none"> • Property Owners/Managers • City Inspectors • Neighbors
POSITIONING	We want businesses to see closing lids on dumpsters every time as a simple way to reduce illegal use, be compliant with regulations and have pest and odor-free dumpster areas that are clean for them and the environment.

INTERVENTION STRATEGIES (4Ps)	
PRODUCT	
<ul style="list-style-type: none"> • Core 	<ul style="list-style-type: none"> • Pest and odor-free dumpster areas
<ul style="list-style-type: none"> • Actual 	<ul style="list-style-type: none"> • Permanent Signage and Stickers • Inspector Reports
<ul style="list-style-type: none"> • Augmented 	<ul style="list-style-type: none"> • Step Stools • Tool for Lids • Consulting • Box Cutter
PRICE	
<ul style="list-style-type: none"> • Monetary Incentives 	<ul style="list-style-type: none"> • Free stepstool • Free month for best behavior • Maybe free or discounted lid tool
<ul style="list-style-type: none"> • Monetary Disincentives 	<ul style="list-style-type: none"> • Code enforcement • Cost to dispose of illegal dumping • Staff having to clean up or pay someone to do the cleaning, storm drain vactored
<ul style="list-style-type: none"> • Nonmonetary Incentives 	<ul style="list-style-type: none"> • Pledges • Window stickers • Rewards (e.g., chocolate fish)
<ul style="list-style-type: none"> • Nonmonetary Disincentives 	<ul style="list-style-type: none"> • Reminder letter for those not following behavior • Photos of unclosed lids
PLACE	
Tangible Goods	<ul style="list-style-type: none"> • Dumpster locations • At the start of the campaign site visit • Station
Services	<ul style="list-style-type: none"> • By appointment on site
PROMOTION	
<ul style="list-style-type: none"> • Messages 	<ul style="list-style-type: none"> • Cleaner, less odors, fewer pests • Worthwhile • Multiple languages
<ul style="list-style-type: none"> • Messengers 	<ul style="list-style-type: none"> • City staff • Property managers
<ul style="list-style-type: none"> • Creative Elements 	<ul style="list-style-type: none"> • “Drop, Cover & Stroll!” • “Close the Lid on Pollution, Pests, Odors”
<ul style="list-style-type: none"> • Media Channels 	<ul style="list-style-type: none"> • On dumpster, at site • Pavement around dumpster • Public recognition (e.g., social media) • Chamber of Commerce • Door/area leading to dumpster site
MONITORING AND EVALUATION	

<ul style="list-style-type: none"> • Inputs Measured 	<ul style="list-style-type: none"> • Staff time • Money spent for tool kit materials • Partner contributions • Consultant expenses
<ul style="list-style-type: none"> • Outputs Measured 	<ul style="list-style-type: none"> • Number of site visits/businesses • Materials disseminated • Materials posted/put in place • Implementation of program elements. (on track? on budget?)
<ul style="list-style-type: none"> • Outcomes Measured 	<ul style="list-style-type: none"> • Behavior adoption • Change in knowledge and beliefs, campaign awareness • Support and satisfaction with outreach • New partnerships and contributions gained
<ul style="list-style-type: none"> • Impacts Measured 	<ul style="list-style-type: none"> • Cleaner dumpster areas, reduced odors, and vermin • Cleaner appearance in downtown and commercial areas, impacting economic development health •
<ul style="list-style-type: none"> • Techniques and Methodologies 	<ul style="list-style-type: none"> • Minimum of three groups to conduct pilot comparing different toolkit tiers. • Implementer to assign participant groups. • Observation, audience surveys, and interviews (quantitative.) • Calculate ROI.
<ul style="list-style-type: none"> • Evaluation Timing 	<ul style="list-style-type: none"> • Pre, mid-term, and post outreach (observations of dumpster lids/areas.)
<ul style="list-style-type: none"> • Evaluation Costs 	<ul style="list-style-type: none"> • Expected cost efficiencies by joining with partner jurisdictions to share costs for consultant work and material production • Use the 10% rule of thumb for any consultant evaluation work • Observations will be conducted by staff
BUDGETING & FUNDING	
<ul style="list-style-type: none"> • Product-Related Costs 	<ul style="list-style-type: none"> • Indirect costs for staff time to conduct technical assistance site visits, waste audits • Direct costs for “tools” signage and stickers
<ul style="list-style-type: none"> • Price Related Costs 	<ul style="list-style-type: none"> • Recognition items like the window stickers (clings) “we keep it clean” or other incentives like free months service for best behavior
<ul style="list-style-type: none"> • Place Related Costs 	<ul style="list-style-type: none"> • Costs related to the distribution of resources, such as a webpage
<ul style="list-style-type: none"> • Promotion Related Costs 	<ul style="list-style-type: none"> • Costs for incentivizing trusted messengers or influencers
<ul style="list-style-type: none"> • Evaluation Related Costs 	<ul style="list-style-type: none"> • Costs for analyzing pilot data • Fees for making program recommendations (consultant)

<ul style="list-style-type: none"> • Potential Funding Sources 	<ul style="list-style-type: none"> • The coalition of local jurisdictions and other stormwater partners. • Partners in Waste Reduction & Recycling • State grant dollars available through salmon recovery funds • Consider appropriate corporate partners/sponsors like REI, local breweries that rely on clean water for their production process, or local shellfish/seafood producers (like Penn Cove or Taylor Shellfish)
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IMPLEMENTATION PLAN-

WHAT	WHO	WHEN
Baseline Dumpster Data Collected and summarized	Jurisdictions	2018-2020
Project coordination and oversight	Core Planning Team/Consultant	Feb. 2020 – Mar. 2024
Dumpster Summit Implementation, a summary of audience research and social marketing plan	Laurie Deveraux, Nancy Lee, Core Planning Team, Participating Jurisdictions	Sept-Nov. 2020
Toolkit development & costs	Consultant	December 2020
Develop a campaign strategy and schedule document	Core Planning Team/Consultant	Early January 2021
Finalize list of participating partners	Core Planning Team	February 2021
Finalize basic partner toolkit	Core Planning Team/Consultant	Mar. 1 2021
Creative campaign concept	Consultant	January 2021
Message testing	Consultant	February 2021
Develop Pilot Phase, selection of pilot sites, implementation and evaluation plan	Core Planning Team/Consultant	February 2021
Finalize partner toolkit, signage stickers, handouts, pledges, and clings	Core planning Team/Consultant	Mar. 1 2021
Toolkit material ordering and production	Consultant	March 2021
Finalize Pilot implementation and evaluation metrics	Core Planning Team/Consultant	March 2021
Implementation meeting with partners	Core Planning Team/Consultant	Mar. 15, 2021
Launch Campaign Pilot Phase	Jurisdictions	Apr. 1, 2021

Tracking/follow-up with partners	Core Planning Team	April - September
Ongoing site evaluation and monitoring	Jurisdictions	April-September
Collect and aggregate Pilot Evaluations from jurisdictions	Consultant	
Begin drafting Pilot evaluation summary report	Core Planning Team	October 2021
Finalize evaluation of Pilot Phase, ROI on toolkit options	Jurisdictions/Core planning Team/Consultant	December 2021
Adapt/modify campaign based on pilot evaluation	Partners, Core Planning Team	January 2022
Broad-scale implementation	Jurisdictions	Feb. 2022 – Dec 2023
Ongoing site monitoring and evaluation	Jurisdictions	Feb. 2022 – Dec 2023
Develop evaluation report outline	Core Planning Team	November 2023
Final evaluation and reporting	Jurisdictions/Core Planning Team	Jan.-Mar. 2024