Public Education & Outreach

Behavior Change Campaign Evaluation & Report

Conducted to Meet NPDES MS4 Permit Requirements

£ Phase I WWA S5.C.11.a.vi £ Phase II WWA S5.C.2.a.ii.(e)

£ Phase II EWA S5.B.1.b.

Title

Insert Project Related Image Here

Date Report Completed

Prepared For:

Jurisdiction

Department

Client Address Line 1

Client Address Line 2

Client Contact - Phone Number

Prepared By:

Organization

Consultant Address Line 1

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Phone Number

Template Instructions

Instructions for using this document will be provided here. This is expected to include:

* Brown text located throughout the document provides the template user with instructions and guidance for developing each section. The brown text should be deleted before finalizing this document. Text highlighted in yellow should be replaced with the information that is relevant to the specific report.
* This template was developed to assist permittees in meeting the evaluation and reporting requirements defined in the Public Education and Outreach section of the NPDES MS4 permits for specifically the understanding and adoption of a targeted behavior. Specifically, WWA Phase I (S5.C.11.a.vi), WWA Phase II (S5.C.2.a.ii.(e)), and EWA Phase II (S5.B.1.b). Since there are differences in the requirements between permits, sections that do not apply to a specific permit will be noted within the report template.
* The use of this template is not required to meet permit requirements. The reporting requirements in the permit were developed to provide the permittee with flexibility regarding the format and what to include for content. The basic information Ecology would like included in the report is how they went through Community Based Social Marketing or similar social marketing approach as well as: the water quality problem, target behavior and audience, barriers and benefits of the desired behavior, description of the campaign/strategy and method of implementation, evaluation methods and results, and recommendations for next steps, and strategies. Including raw data and other supporting documents (e.g. campaign materials and instruments used to evaluate change) is optional (not required to meet permit requirements) and will be noted as such within the template. However, this information should be identified/described in the report and available upon request.
* Discussion on how this document should be used with the evaluation guidance contained in the training manual. References to specific evaluation guidance sections will be noted within the applicable section of this report.

Publication Information

Insert information about where this report will be stored and accessible to the public. Include a weblink and/or contact information.

REPORT TEMPLATE AUTHORS

Aimee Navickis-Brasch, PhD, PE  
Osborn Consulting, Inc.

Francesca White, PE  
Osborn Consulting, Inc.

MaKenna Lindberg  
Osborn Consulting, Inc.

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Authors and Contact Information

Insert author and contact information here:

Name

Organization

Title

Address

City, State, Zip Code

Email Address

Phone Number(s)

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# Executive Summary

The executive summary is a non-technical summary of the project that is typically written for a more general audience and includes the “key” elements of the report. This may include:

* Description of the behavior change campaign and the strategy developed
* Note where the evaluation was conducted (location) and duration of the evaluation
* Describe the evaluation goals and objectives as well as how those objectives were accomplished
* Note the type of instruments (i.e., survey, interviews, observations, etc.) used to measure changes in the target audience’s understanding and adoption of behavior change
* Note the type of data collected (i.e., pre, post, control) and how much data was collected (i.e., sample size)
* Provide an overview of the evaluation results regarding behavior understanding and adoption
* Recommended changes to the campaign to be more effective
* An overview of the implementation plan for the campaign post evaluation.

# Introduction

* Introduce the jurisdiction.
* Describe the MS4 area.
* Provide a brief overview of the education and outreach program.
* Describe if this program is local or a part of a larger regional program.
* State purpose of this report.
* Limit to one or two paragraphs.

# Behavior Change Campaign Background (S5.C.11, S5.C.2.II, S5.B.1)

Section 4 focuses only on the behavior change campaign. Information about the evaluation plan should be included in Section 5.

## Behavior Change Campaign Overview

* Provide an overview of the behavior change campaign including how the campaign was implemented
* Describe how the actual CBSM/SM strategy was developed, why this strategy was selected, how it addressed barriers, and motivators.
* Describe any materials associated with the campaign. Providing a copy of the materials in the Appendix is optional however the documents should be available upon request from Ecology.
* Describe how the campaign was implemented including the type of media (if any) used to disseminate the materials/message.
* Note if any of the campaign materials were produced in more than one language.

## Target Audience (S5.C.11.a.ii, S5.C.2.a.ii, S5.B.1.a.i-iii)

* Describe the target audience including their demographics if collected.
* Describe how the target audience was selected
* Discuss any original audience research conducted that helped inform the campaign strategy.
* Describe what is known about the target audience’s relevant stormwater perceptions before the evaluation including the basis for their perceptions.

## Target Behavior and BMPs (S5.C.11.a.ii, S5.C.2.a.ii)

* Describe the target behavior and list the preferred best management practices (BMPs) for the target audience to adopt because of the campaign. Reference the respective NPDES MS4 permit under the Effect Behavior Change on the [flow chart](https://osbornconsultinginc997.sharepoint.com/:b:/s/30-200005SAMStormwaterEOStudy/EZTtiH8gtcBNm_ml3KjT5IUB9kCq4Yie_TTwDkrs-Vi0Yg?e=hlOWzz).
* Describe the key barriers and motivators for the target audience to implement the preferred BMP and how they were identified.
* Describe how the target behavior was identified and selected over other target behaviors.
* Explain how this target behavior was determined to mitigate to the pollutant identified in Section 3.1

# Evaluation Plan Overview (S5.C.11.a.iii, S5.C.2.a.ii, S5.B.1.b)

Section 4 focuses only on the evaluation that was conducted to measure changes in understanding and adoption of the targeted behaviors.

## Evaluation Goals & Objectives

Define all the evaluation goal(s) (i.e. the reason(s) the evaluation is being conducted) and objective(s) (i.e. measurable statement(s) that include an action verb defining how the project goal will be accomplished).

## Evaluation Description

The section describes the process for how the evaluation goal(s) and objective(s) were accomplished.

* Note how the understanding and adoption of the targeted behavior were evaluated (e.g., comparing pre and post data, comparing data collected from the target and control populations, etc.)

## Evaluation Location(s) and Target Population (S5.C.11.a.iv, S5.C.2.a.ii.(c), S5.B.1.b)

Identify and provide an overview of the location where the evaluation was conducted (test and control sites if applicable). Describe the target population and discuss what is already known about the target population. Examples include:

* Approximate target population size.
* Is this population marginalized?
* What language(s) does the population speak?
* What types of media does the population consume?

Figure 4.1 [Insert figure caption here]

*Provide Map of Evaluation Area*

## Key Team Members

List the key team members’ names and roles who were involved in developing and implementing the campaign as well as conducting the evaluation. A table format is preferred.

**EXAMPLE**

Table 5‑1 Key Project Team Members: Roles & Responsibilities

|  |  |
| --- | --- |
| KEY TEAM MEMBERS | ROLE |
| Name, Entity | Project Manager |



# EVALUATION METHODS (S5.C.11.a.iii, S5.C.2.a.ii, S5.B.1.b)

This section focuses on the data collected, the instruments used to collect data and measure change, and how the data was analyzed. Guidance for conducting the evaluation will be provided in the Training Manual.

## Data Overview

### Data Collected to Meet Each Objective

Describe the data collected to meet each objective including items such as: type of data, source of data, pre vs. post vs. control, frequency of collection, number of samples collected, location of sampling, purpose of data, etc. A table format is preferred. Examples based on evaluation complexity are provided in Table 5.1 through Table 5.X

EXAMPLE

Table 6‑1 Data Needed to Meet Each Objective - Example 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Type | Sample size Planned | Sample Size Actual | How Data Was Collected | Purpose |
| List of Businesses and Contact information | 50 | 45 | Google Maps & Bing Maps cross referencing | Identifies the target population of the evaluation |
| Baseline Survey Data | 35 | 32 | Survey mailed to businesses | Identifies target audience barriers |
| Follow-Up Survey Data | 35 | 28 | Survey mailed to businesses | Measure adoption of targeted behaviors |

Table 6‑2 Data Needed to Meet Each Objective - Example 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Type | Sample size Planned | Sample Size Actual | How Data Was Collected | Purpose |
| List of Businesses and Contact information | 50 | 45 | Google Maps & Bing Maps cross referencing | Identifies the target population of the evaluation |
| Baseline Observation Inspection | 45 | 40 | In-person site visit to collect data | Rule out social desirability bias |
| Survey Data | 35 | 32 | Survey mailed to businesses | Identify target audience barriers |
| Follow-Up Observational Inspection | 45 | 42 | In-person site visit to collect data | Rule out social desirability bias; help determine if behaviors have been adopted, ultimately proving the effectiveness of the evaluation |

Table 6‑3 Data Needed to Meet Each Objective - Example 3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Type | Sample size Planned | Sample Size Actual | How Data Was Collected | Purpose |
| List of Businesses and Contact information | 50 | 45 | Google Maps & Bing Maps cross referencing | Identifies the target population of the evaluation; contact information will be used to schedule site visits |
| Baseline Observation Inspection | 45 | 40 | In-person site visit to collect data | Rule out social desirability bias |
| Baseline Survey Data | 35 | 32 | In-person site visit | Identify target audience barriers |
| Follow-Up Survey Data | 35 | 28 | In-person site visit | Measure adoption of targeted behaviors |
| Follow-Up Observational Inspection | 45 | 42 | In-person site visit to collect data | Rule out social desirability bias; help determine if behaviors have been adopted, ultimately proving the effectiveness of the evaluation |

## Instruments Used to Measure Change

This section describes the instrument(s) that were used during the evaluation to measure change. In the context of E&O studies, instruments are a measurement device (i.e. a survey, test, observation log, focus group, etc.) used to measure changes in the target audiences understanding and adoption of target behaviors.

### Instrument Design and Validation

Describe the instruments used to measure change including how they were designed and developed. Including a copy of the instruments in the appendix is optional.

### Instrument Validation

This section describes the process that will be employed to validate the instruments. After the instrument(s) have been developed, the next step is to validate the instrument. Validation is the process to verify the instrument measures what it was intended to measure and produces stable results (Guba, 1981). This section may include:

* The use of established instruments from similar studies that have already been validated
* Field testing of instruments before broad implementation (i.e. focus groups, pilot testing, etc.)
* Asking the same question with response categories read in reverse order (quantitative data)
* Using peer debriefing: independent reviewers who verify codes/themes for a portion of the responses; then the reviewers compare, discuss, and modify their codes/themes until they mutually agree (qualitative).
* Using multiple methods
* Peer review of instrument/questionnaire by panel of experts

### Data Collection Protocol

This section defines the procedures for collecting the various types of data created by each instrument. Defining these procedures and following them consistently will minimize errors and support the integrity of the collected data. Standard operating procedures (SOPs) are the procedures that define specifically how to conduct an activity. SOPs should provide sufficient detail such that the activity is repeatable and can be reproduced by an individual (i.e. third party) unfamiliar with the evaluation.

SOPs for Behavior Change Campaign Evaluations may include:

* Instructions that will be provided to the participant before they take the survey
* How the instruments will be disseminated to the target population (i.e. mailer, email, web based polls, social media, list-serve, one-on-one or group interview, etc.)
* How interviews will be conducted including instructions provided to the participant before starting an interview; how to address the participant’s questions during the interview; and how to address prompting and/or priming participants
* What data will be recorded

In addition, consider checking for Ecology’s published SOPs, <https://ecology.wa.gov/About-us/How-we-operate/Scientific-services/Quality-assurance>.

## Data Analysis Methods

Describe the data analysis methods used to analyze the data. This may include but not be limited to:

* For multiple choice and yes/no questions, quantitative data analysis methods such as basic statistics
* For open ended interview questions, qualitative data analysis methods such as categorizing the data into themes and codes
* Hypothesis testing
* Describe how the return on investment was calculated and whether the strategy is the most cost effective

For assistance selecting data analysis methods see the Guidance Training Manual.

## Pilot Testing & Evaluation Changes

Describe if this evaluation served as a pilot test or if previous pilot testing had been conducted. If this evaluation served as a pilot test, discuss the recommended changes to improve the evaluation based on the pilot testing results. If previous pilot testing had been conducted, discuss how the results of the pilot testing impacted this evaluation and what changes were made.

# Results & Discussion

This section provides a summary of the results and discussion regarding what the results mean.

## Summary of Results

* Where possible summarize results into figures, tables, charts, etc.
* For quantitative data, discuss the differences between the pre and post data. If hypothesis testing was conducted, note whether there was a statistically significant difference between the data sets.
* For qualitative data, provide a summary of the common themes found and discuss how the themes changed between the pre and post data.
* Include a copy of the raw data in tables in the appendix

### Changes to Understanding Target Behavior (S5.C.11.a.vi.(a), S5.C.2.a.ii.(e), S5.B.1.b)

* A description about understanding target behavior will be provided.
* Summarize results related to change in understanding target behavior

### Change in Adoptions of Target Behavior (S5.C.11.a.vi.(a), S5.C.2.a.ii.(e), S5.B.1.b)

* A description regarding the differences between understanding and adoption of target behavior will be added.
* Summarize results related to change in adoption of target behavior

## Challenges Identified During the Evaluation

* What Challenges were Identified? State structural, behavioral, and/or institutional barriers that were identified throughout the evaluation.
* Steps Taken to Overcome Challenges. How were the challenges identified during the evaluation approached and/or resolved?
* Discuss lessons learned that can be applied to future studies.

# Future Action Recommendations (S5.C.11.a.vii, S5.C.2.a.ii.(f), S5.B.1.b)

* Discuss recommend actions based on the evaluation results to make the campaign more effective. This should include strategies and the process to achieve these results.
* If changes in the target audience’s adoption of behavior change were not observed discuss strategies for improving the campaign. EXAMPLE: Low response rate to surveys may be improved by reviewing the survey for jargon and replacing the language with words and phrases more accessible to the public, or by providing incentives to take the survey.
* Describe plans for continuing to implement an ongoing behavior change campaign

# References

# Appendices

Evaluation Schedule *(Optional)*

Provide a range of dates for when the tasks and subtasks for developing, implementing, and evaluating the campaign. A table format is preferred.

**EXAMPLE**

Table 10‑1 Evaluation Timeline

|  |  |  |
| --- | --- | --- |
| Task & Deliverable | Start Date | Completion Date |
| Task 1: |  |  |
| *Subtask* |  |  |

