STORM Response to Formal Draft of NPDES Phase I Municipal Stormwater Permit 2019-2024

November 6, 2018

Overview & Methods

This report serves as the formal comment from STORM on the formal draft of NPDES Phase I Municipal Stormwater permit for 2019-2024. STORM members submitted individual comments via SurveyMonkey® to generate a collective response to the proposed permit requirements. This report does not reflect a consensus from STORM, rather, it serves to highlight opinions that two or more Permittees shared. A complete listing of individual comments is available in Appendix A, all of which are to be considered as formal comments. The survey was made available from September 21st – October 15th, 2018. Five responses were collected; the completion rate was 100% and respondents spent an average of 29 minutes completing the survey. For each proposed requirement, Permittees:

1. Rated the extent to which they agreed with each permit requirement on a Likert scale of 1, *completely disagree*, to 5, *completely agree*. Means for each requirement are provided.
2. Provided comments describing the reasoning behind each rating. Themes within comments for each proposed requirement are highlighted in the body of the report. See Appendix A for all recorded comments.

Responses to Each Proposed Requirement

S5.C11. The SWMP shall include an education and outreach program designed to:

• Build general awareness about impacts from, and methods to address and reduce stormwater runoff.
• Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
• Create stewardship opportunities.

Permittees were generally positive about this proposed requirement, with an average rating of 4 (*SD* = 0).

Concerns with efficacy of overall program. Three Permittees noted different concerns with the three main components of the program, including that (1) stewardship activities are only effective if strategically linked to behavior change, (2) behavior change work should be a regional campaign on one topic, instead of many different topics throughout region (3) behavior change should not be the requirement - attempting to change behavior should.

S5.C11. (continued). Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration on general awareness or behavior change programs, or both, includes Permittees developing a consistent message, determining best methods for communicating the message, and when appropriate, creating strategies to effect behavior change. If a Permittee chooses to adopt one or more elements of a regional program, the Permittee shall participate in the regional group and implement each element of the regional program in the local jurisdiction.

Permittees were slightly positive about this proposed requirement, with an average rating of 3.6 (*SD* = 0.89).

Four Permittee commented on different aspects of this requirement. Please see Appendix A.

S5.C11.a Minimum performance measures:

a. Each Permittee shall implement an education and outreach program for the area served by the MS4. The program design shall be based on local water quality information and target audience characteristics to identify high priority target audiences, subject areas, and/or BMPs. Based on the target audience's demographic, the Permittee shall consider delivering its selected messages in language(s) other than English.

Permittees were slightly positive about this requirement, with an average rating of 3.6 (SD = 0.89).

Local water quality. Two Permittee commented on "local water quality"; one indicated this term needs to be better defined and the other stated a protocol for prioritizing local water quality should be included.

High priority audience. Two Permittee commented on "high priority audience", with one stating it isn't possible to prioritize audiences because local water quality problems are not directly tied to a specific audience and the other stating that, if English language materials are ineffective on English speaking populations, why would translated materials be effective with audiences who speak other languages?

S5.C.11.a.i General awareness: To build general awareness, Permittees shall target the following audiences and subject areas:
(a) Target Audiences: General Public (including school age children and overburdened communities), and businesses (including home-based and mobile business)
(a) Subject areas:
 • General impacts of stormwater on surface waters, including impacts form   impervious surfaces..
 • LID principles and LID BMPs.
 • Opportunities to become involved in stewardship activities.

(b) Target audiences: Engineers, contractors, developers, and land use planners.
(b) Subject areas:
 • Technical standards for stormwater site and erosion control plans.
 • LID principles and LID BMPs.
 • Stormwater treatment and flow control BMPs/facilities.

Permittees neutral about this proposed requirement, with an average rating of 3 (SD = 1).

Clarifications requested.

Overburdened communities. Definition requested; also, clarification about how to prioritize targeting "high priority audiences" and overburdened communities – what to do when these represent different audiences?

Mobile business. One Permittee requested a better definition for this term.

Erosion control plan is not consistent with terminology in Appendix 1 or the SWMMWW (Stormwater Management Manual for Western Washington).

S5.C.11.a.i.c Permittees shall provide subject area information to the target audience on an ongoing or strategic schedule.

Permittees were slightly postive about this proposed requirement, with an average rating of 3.8 (*SD* = 1.1).

Only one Permittee commented on this requirement; please see Appendix A.

S5.C.11.a.ii Behavior change: To effect behavior change, Permittees shall target the following audiences and BMPs:

(a) Target audiences: Residents, landscapers and property managers/owners school age children,) and businesses (including home based and mobile businesses) BMPs:
 • Use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps,   and other hazardous materials.
 • Prevention of illicit discharges.
 • Yard care techniques protective of water quality.
 • Use and storage of pesticides and fertilizers and other household chemicals.
 • Carpet cleaning
 • Repair and maintenance BMPs for vehicles, equipment, and/or home buildings.
 • Pet waste management and disposal.
 • LID principles and LID BMPs.
 • Stormwater facility maintenance, including LID facilities.
 • Dumpster and trash compactor maintenance.
 • Litter and debris prevention.
 • (Audience specific) Source Control BMP's.
 • (Audience specific) Locally important, stormwater-related subject area.

Permittees were neutral about this proposed requirement, with an average rating of 3 (*SD* = 0.70).

Rewrite requested. Two Permittees requested revisions in this section with one stating that DOE verbally stated in a recent conference call that this section should have read as it did in the preliminary draft permit. Another Permittee stated that the way the information is laid out allows for selecting a target audience and corresponding BMP that is not reasonable (e.g., school age children and carpet cleaning).

S5.C.11.a.ii.b No later than July 1, 2020, each Permittee shall conduct a new evaluation of the effectiveness of the ongoing behavior change program (required under S5.C.10.a.ii of the 2013- 2018 Permit). Permittees shall document lessons learned and recommendations for which option to select from S5.C.11.a.ii.(c).

Permittees were slightly negative about this proposed requirement, with an average rating of 2.6 (*SD* = 1.5).

Evaluation criteria unclear. Three Permittees noted that DOE's expectations for evaluations are unclear and requested that DOE clarify exactly what is to be evaluated.

Evaluation = cost barrier. Two Permittees noted that evaluations are costly, with one pointing out that not all Permittees will be able to afford the same level of evaluation.

S5.C.11.a.ii.c Based on the evaluation from S5.C.11.b, by February 1, 2021, each Permittee shall follow social marketing practices and methods, similar to Community-Based Social Marketing, and develop a program that is tailored to the community8 (including the development of a program evaluation plan), or equivalent, to:

i) Develop a strategy and schedule to more effectively implement the existing program,   or
i) Develop a strategy and schedule to expand the existing program to a new target audience or BMPs, or
i) Develop a strategy and schedule for a new target audience and BMP behavior change campaign.

Permittees were neutral about this proposed requirement, with an average rating of 3 (*SD* = 1.58).

Three Permittees provided different comments on this requirement; please see Appendix A.

S5.C.11.a.ii.d No later than April 1, 2021, begin to implement the strategy developed in S5.C.11.b.

Permittees were slightly positive about this proposed requirement, with an average rating of 3.8 (*SD* = 0.84).

One Permittee commented on this requirement; please see Appendix A.

S5.C.11.a.ii.e No later than March 31, 2024, evaluate and report on the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy and any changes to the program in order to be more effective; describe the strategies and process to achieve the results.

Permittees were slightly positive about this proposed requirement, with an average rating of 3.71 (*SD* = 0.71).

Three Permittees provided different comments to this requirement; please see Appendix A.

S5.C.11.a.iii Each permittee shall create and advertise stewardship opportunities and/or partner with existing organizations (including non-permittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.

Permittees were generally negative about this proposed requirement, with an average rating of 2 (SD = 1.3).

Two Permittees provided different comments to this requirement; please see Appendix A.

Appendix A

S5.C11. The SWMP shall include an education and outreach program designed to:

• Build general awareness about impacts from, and methods to address and reduce stormwater runoff.
• Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
• Create stewardship opportunities.

Completely agree with the "build awareness" and "effect behavior change" aspects. Yet although "creating stewardship opportunities" does help support community building, it has little measurable impact on water quality or water quantity (flow) unless it is strategically tied to helping participants become actively involved in education and outreach. There are ways to strategically tie it back, yet the permit language does not do so and the net result can be a community-building effort or, at a minimum, a "feel good" activity.

Good goals, but not very effective. The program would be more effective if it was highly innovative and very targeted. A national campaign on one topic, like a stop smoking campaign could be far more effective at behavior change.

Effecting behavior change may be an impossible task - attempting to change behavior should be the requirement.

S5.C11 (continued). Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration on general awareness or behavior change programs, or both, includes Permittees developing a consistent message, determining best methods for communicating the message, and when appropriate, creating strategies to effect behavior change. If a Permittee chooses to adopt one or more elements of a regional program, the Permittee shall participate in the regional group and implement each element of the regional program in the local jurisdiction.

The language needs to be more specifically worded to eliminate multiple interpretations that have arisen out of the use of the word "program": - Completely agree IF by "regional program" the intent is a topically-specific project / campaign to a shared targeted audience. - However, IF "regional program" refers to STORM itself (i.e. must participate in every endeavor in which STORM is involved), we would not agree.

In order to have an effective regional program there needs to be buy in. The regional program needs to be much more inclusive and find ways to involve small communities with few staff to devote to the topics.

We are generally in agreement that if a jurisdiction chooses to take credit for a regional program, that program must be implemented at the local level, and we feel that is reflected in this language.

There may be some regional programs where a particular element is not relevant in a specific jurisdiction. For example, if the program had an element that was specific to stream discharge but your jurisdiction did not have a stream then the program may not be applicable.

S5.C.11.a Minimum performance measures:

a. Each Permittee shall implement an education and outreach program for the area served by the MS4. The program design shall be based on local water quality information and target audience characteristics to identify high priority target audiences, subject areas, and/or BMPs. Based on the target audience's demographic, the Permittee shall consider delivering its selected messages in language(s) other than English.

Disagree. Applaud the effort to tie the program to local water quality information and coming up with high priority target audiences/subject areas/BMPs, YET without a common protocol in place to discern what is the most important local water quality information to base a program on and, additionally, decide between high priority target audiences (plural). Who is to say why one target audience is a higher priority than another? It is rare when local water quality information correlates directly to a specific target audience that has the greatest impact on non-point source pollution. What is the relationship between this high priority target audience and overburdened communities mentioned later within this section?

As long as additional languages are stay consider. If we are ineffective at reaching the majority of our citizens, who speak english, why would our campaign be effective in another language and culture. The concept of local water quality information is not well defined.

S5.C.11.a.i General awareness: To build general awareness, Permittees shall target the following audiences and subject areas:

(a) Target Audiences: General Public (including school age children and overburdened communities), and businesses (including home-based and mobile business)
(a) Subject areas:
 • General impacts of stormwater on surface waters, including impacts form   impervious surfaces..
 • LID principles and LID BMPs.
 • Opportunities to become involved in stewardship activities.

(b) Target audiences: Engineers, contractors, developers, and land use planners.
(b) Subject areas:
 • Technical standards for stormwater site and erosion control plans.
 • LID principles and LID BMPs.
 • Stormwater treatment and flow control BMPs/facilities.

 1. On all but the reference to overburdened communities, we completely agree. 2. Disagree with "overburdened communities" without knowledge of how to tie this to the minimum performance measure of local water quality information and to high priority audiences. With faced wtih hard decisions of limited resources, is the greater priority placed on outreach to priority audiences or to overburdened communities? What is the desired tangible outcome related back to the local water quality? Our jurisdiction's outreach activities already incorporates consideration of languages other than English used within the home within a target audience -- is this sufficient to meet the minimum performance measure of "overburdened communities" since "languages other than English" are specified elsewhere within this section?

These topics need to be approached in very different ways. Technical standards cannot be generalized and should be incorporated into a training component under the New and Redevelopment section.

We are unfamiliar with the term "overburdened" communities, but assume it is similar or equivalent to "underserved" communities, which we more often use. In general, we very much appreciate the inclusion of this audience in the language, as well as the school age audience, two groups we believe to be essential in our overall landscape of targeted outreach In a conference call with Ecology and other Phase I jurisdictions, we were informed this is taken from EPA language and would appreciate seeing that reference, as was promised as a follow up.

Mobile businesses need to be better defined. Overburdened communities need a very clear methodology for determining where that community exists. Erosion control plan is not consistent terminology with Appendix 1 or the SWMMWW (Stormwater Management Manual for Western Washington) - change to SWPPP (Stormwater Pollution Prevention Plan).

S5.C.11.a.i.c Permittees shall provide subject area information to the target audience on an ongoing or strategic schedule.

Too much information all the time. It gets filtered out. Strategic, efforts on one topic for a limited amount of time could be far more effective.

S5.C.11.a.ii Behavior change: To effect behavior change, Permittees shall target the following audiences and BMPs:

(a) Target audiences: Residents, landscapers and property managers/owners school age children,) and businesses (including home based and mobile businesses) BMPs:
 • Use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps,   and other hazardous materials.
 • Prevention of illicit discharges.
 • Yard care techniques protective of water quality.
 • Use and storage of pesticides and fertilizers and other household chemicals.
 • Carpet cleaning
 • Repair and maintenance BMPs for vehicles, equiptment, and/or home buildings.
 • Pet waste management and disposal.
 • LID principles and LID BMPs.
 • Stormwater facility maintenance, including LID facilities.
 • Dumpster and trash compactor maintenance.
 • Litter and debris prevention.
 • (Audience specific) Source Control BMP's.
 • (Audience specific) Locally important, stormwater-related subject area.

In a 10/3/18 conference call with Phase-I Permittees, Ecology Permit staff indicated that they erred in the writing of this section, stating their intent was to stick with the language included in the Preliminary Draft Permit that allows Phase-I municipalities to at least one target audience in one BMP -- and not all audiences and BMPs that are listed in the current Draft Permit. In light of DOE's verbal statement, which we completely agree with, we disagree with the current Draft language.

We've been doing this for years. It seems if we were effective we would have seen measurable results by now.

The current formal draft does not appear to state Ecology's intent which was to provide a behavior change program for a single target audience and BMP. Not all audiences match up with all the BMPs which could create confusion (for example, school age children and carpet cleaning should not be a option but as written could be) and should be rewritten.

S5.C.11.a.ii.b No later than July 1, 2020, each Permittee shall conduct a new evaluation of the effectiveness of the ongoing behavior change program (required under S5.C.10.a.ii of the 2013- 2018 Permit). Permittees shall document lessons learned and recommendations for which option to select from S5.C.11.a.ii.(c).

There is a lot of interpretation in this section. The main issue is what Ecology will accept as a "new evaluation." Not all Permittees can achieve the same level of evaluation due to funding, staffing and the programs.

This is extremely difficult and expensive. A regional group could do a project on one topic. We should consider hiring a national advertising firm to do this study.

This language is problematic due its lack of clarity. Thanks to both a STORM coordinated conference call and a STORM quarterly meeting, both also attended by representatives of Ecology, we now understand the intent of this section; however, we feel the stated intent is not reflected in the current language.   We understand that the "new evaluation" need only cover one BMP and one target audience. Therefore, we suggest the following change: "...each Permittee shall conduct a new evaluation of the effectiveness of at least one campaign within their ongoing behavior change program (required under S5.C.10.a.ii of the 2013- 2018 Permit). A single campaign is defined an effort that addresses at least one BMP and one target audience."   We further develop the difference between "campaign" and "program" in the following question, which may be a useful distinction to make.

It is unclear what program is being evaluated under this section. The previous permit did not require an ongoing program. Is the intent to evaluate the new program under S5.C.11.a.ii.(a) or a program completed under the 2013-2018 Permit?

S5.C.11.a.ii.c Based on the evaluation from S5.C.11.b, by February 1, 2021, each Permittee shall follow social marketing practices and methods, similar to Community-Based Social Marketing, and develop a program that is tailored to the community8 (including the development of a program evaluation plan), or equivalent, to:

i) Develop a strategy and schedule to more effectively implement the existing program,   or
 i) Develop a strategy and schedule to expand the existing program to a new target audience or BMPs, or

 i) Develop a strategy and schedule for a new target audience and BMP behavior change campaign.

This is a very complex proposal. It is not possible for almost any municipality to complete this successfully.

Here it would also be important to clarify as above. Notice that bullet iii) does this well by specifically defining "a" new target audience and BMP behavior..." Note that within bullet iii) we also see "campaign" appear rather than "program." This word change may help lend clarity. To us, "program" implies many different audiences and many different BMP behaviors while "campaign" implies a single audience and BMP element within the larger "program," which often seems to jibe with what the permit is after. Therefore, it may lend clarity to replace the word "program" in bullets i) and ii) with "campaign," and leave it at that. Again, that is assuming campaign and program are clearly differentiated in the (b) section above. "Suggested changes would therefore be as follows. Proposed word changes appear in ALL CAPS: i) Develop a strategy and schedule to more effectively implement the existing CAMPAIGN, or i) Develop a strategy and schedule to expand the existing CAMPAIGN to a new target audience or BMPs, or i) Develop a strategy and schedule for a new target audience and BMP behavior change campaign."

Unclear about which program this applies to, see comment above.

S5.C.11.a.ii.d No later than April 1, 2021, begin to implement the strategy developed in S5.C.11.b.

If a national advertising firm can run a successful evaluation and determine how to make our education and outreach more successful, we'd take their advice.

S5.C.11.a.ii.e No later than March 31, 2024, evaluate and report on the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy and any changes to the program in order to be more effective; describe the strategies and process to achieve the results.

My comments here are similar to those in the open answer section of Question 9.

More studies that should be completed at a national level.

Given comments above, we suggest the following changes. Changes are again in ALL CAPS: "12. (e) No later than March 31, 2024, evaluate and report on the changes in understanding and adoption of targeted behavior(S) resulting from the implementation of the strategy and any changes to the CAMPAIGN in order to be more effective; describe the strategies and process to achieve the results."

S5.C.11.a.iii Each permittee shall create and advertise stewardship opportunities and/or partner with existing organizations (including non-permittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.

We already do this.

Stewardship opportunities are also in S5.C.11.a.i.(a) - this should only be in one section and is the idea just to target residents or the general public and businesses?