

City of Kirkland

See attached. Thank you!

City of Kirkland Comments on Preliminary Draft MS4 Permit Language

Outreach and Education

- Intro paragraph to S5.C.4.1: Recommend striking sentence “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 affect behavior change.” This statement is more appropriate for inclusion in the fact sheet.
- What kind of documentation (e.g., via annual report) will Ecology require to demonstrate compliance with the criteria laid out in S5.C.1.a?
- What behavior change is Ecology seeking from Residents, landscapers, or property managers as it relates to LID principles and BMPs? This category does not seem to fit under S5.C.1.a.ii(a) for this permit cycle. Recommend striking.
- Recommend expanding the “Stormwater facility maintenance” bullet under S5.C.1.a.ii(a) to include LID facilities. This would help reinforce and inform maintenance that may now be required under S5.C.4.
- S5.C.1.b indicates that Permittees are required to conduct a new evaluation of the effectiveness of an existing behavior change program. It is unclear if this means that the Permittee must re-evaluate the program that was examined under the current program or if we can evaluate a different, yet ongoing, behavior change program. Please consider clarifying the language to allow Permittees to select a different behavior change program to evaluate, if desired. Guidance or direction on what is this evaluation should entail will be helpful.
- Community-based social marketing is a very specific (branded) approach. Consider a more flexible approach that focuses on social marketing more broadly.
- Recommend moving definition of Community-based Social Marketing to Definitions section (vs. in body of permit as a footnote).
- S5.C.1.d: Is this a second full behavior change evaluation to be conducted within this 5-year permit cycle? Please explain how this is different in scope from the behavior change evaluation called for under S5.C.1.b.

IDDE

- Please clarify what is meant by “potential illicit discharges.” Is the intent of this revision to have Permittees report on any discharge they investigate?
- Please update language to focus data submittal on those discharges to your MS4. As written, the language is overly broad. Discharges to land or air are not the focus of this program/permit. (Although this edit may not be necessary given the definition of “illicit discharge,” it adds helpful clarification.)

IDDE Schema

- Please explain in attached Fact Sheet how Ecology proposes to make use of the data being collected. Please focus this extensive information request on data that are likely to be evaluated or scrutinized to support IDDE or related P2 efforts. Strike other information from the request.

- Q7: This program is focused on discharges to the MS4. Please update the data entry form to allow Permittee to close out form for any “No” responses to this question. If the discharge did not hit the MS4, the following Qs are not relevant to this program.
- Q11: Provide list of top 10. Cover rest under “Other: _____”
- Q12: Detail under Allowable or Conditionally Allowed seems excessive. The list of allowed discharges is detailed in the permit.
- Q12: Provide list of top 10. Cover rest under “Other: _____”
- Q15: Is there value in detailing the type of enforcement actions taken? If not, delete subcategories.

NOTE: Specific additional suggested edits provided in attachment.

Source Control

- It will be helpful for Ecology to develop a series of FAQs or a guidance document to support implementation of this requirement.
 - E.g., Is the 20% inspection rate based on the inventory established August 1, 2021?
 - E.g., How often does the site inventory need to be updated (once per permit cycle)?
 - E.g., Are Permittees expected to visit sites that are permitted under another NPDES permit (such as an Industrial Stormwater General Permit)?
- O.b.iii(a): Please clarify that the inspection program is focused on “all identified sites with a business address within the Permittee’s jurisdiction.” There may be businesses outside City boundaries that have the “potential to generate pollutants to the Permittee’s MS4.” Permittees generally do not have authority to inspect or enforce against those entities. Clarification can be made in fact sheet or FAQs, if more appropriate.
- O.b.iii(b): Please clarify if Permittees can count those properties for which they are denied entry against the 20% target.
- O.b.iii(c): Permittees may be challenged to inspect 100% of complaints associated with mobile businesses. We may be able to inspect 100% of those complaints associated with mobile businesses based and licensed within our jurisdiction.
- O.b.iii(c): Please clarify (via FAQ or fact sheet) if the inspections associated with legitimate complaints count toward our 20% annual targets.
- O.b.iii(c): Does Ecology expect the Permittee to inspect these sites within any certain timeframe?
- O.b.iii(c): How do these inspections overlap with IDDE inspections?

Mapping

- O.a.iii: Please clarify if (and by when) you expect Permittees to go back and map those facilities that were excluded in the previous permit cycle (due to error/inadvertent narrowing of scope of mapping). Correspondingly, please consider adding “Known” to the definition.
- “Permanent Stormwater facilities” definition: Please add examples to the definition to clarify, for instance, whether dispersion/energy dissipating devices, T’s, splashblocks, etc. are to be mapped. We assume the definition will emphasize “facilities” (vs. devices).
- NOTE: Page 2 of this writeup indicates that the new term (“permanent stormwater facilities”) will be used in the Phase II Operations and Maintenance section. However, it is unclear how Ecology intends to do so (and on what schedule), having provided no preliminary draft language for that section. Requiring inspection of this broad universe of “facilities” could represent an enormous inspection burden and makes clarification/tightening of the definition all that more important.

Mapping Guidance

- Please explain why discharge points that are also considered permanent stormwater facilities need to have both labels attached to the map. What additional value does this provide?

Monitoring

- Please explain the proposed language under S8.C.1. Is this contemplated as a separate item to be tracked for the annual report? Those “records” could and should be made available by whatever entity is accepting SAM funds to conduct the work, rather than individual permittees (e.g., as a contract deliverable). Please strike this requirement as it represents an extra recordkeeping task and will not necessarily improve response rates.

Public Education and Outreach (WWA Phase II)

Preliminary draft “fact sheet”

I. Introduction

The Washington Department of Ecology (Ecology) is working on reissuing the Western Washington Phase II Municipal Stormwater Permit. Ecology has prepared preliminary draft sections of permit language and is accepting informal comments on these sections until **11:59 p.m. January 15, 2018**. **Send your comments to:** <http://ws.ecology.commentinput.com/?id=tkx29>

Or mail hard copies to:

Municipal Stormwater Comments
WA Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

II. Proposal

Ecology proposes to revise the “Public Education and Outreach” (Ed &O) permit section in the Phase I (Special Condition S5.C.10) and Western Washington Phase II Municipal Stormwater Permits (Special Condition SSC.1.). While the proposed changes to both Permits are similar, this document is tailored to the proposed changes for the Phase II Permit. The revisions focus on providing clarity to the components that make up the public education and outreach program:

1. general awareness,
2. behavior change, and
3. stewardship opportunities.

The general awareness and stewardship sections stay largely the same as in the 2013 permit, with language added to help clarify how many audiences and BMPs must be targeted, and how to create stewardship opportunities. The behavior change section is revised and clarified to set specific expectations for the process that must be followed in order to encourage changes in behavior.

III. What are the proposed permit changes?

S5.C1. Introductory paragraph: revised the formatting and added language to clarify the three-prong approach to the public education and outreach program, each component (e.g. building awareness, behavior change, and stewardship) was included in the 2013 permit. Additional language to emphasize and clarify how the program can be a regional effort as well as an individual permittee program.

S5.C.1.a: Specific language changes to clarify requirements, and that the selection of target audiences and subject areas must be based on addressing a local water quality priority.

S5.C.1.a.i: Language clarifications that this is the “general awareness” requirement, and the minimum level of effort.

S5.C.1.a.i.(a): Revisions to clarify target audiences and subject areas. Subject area : *impacts of illicit discharges and how to report them* was removed as this topic is a requirement of the IDDE section.

S5.C.1.a.ii: Language clarifications that this is the “behavior change” requirement, and the minimum level of effort.

S5.C.1.a.ii.(a): Revisions to clarify target audiences and BMPs. General public, was removed as a target audience as this category is too broad to focus a behavior change program. Behavior change programs should target a more specific audience so that it is easier to discern barriers and opportunities for the desired behavior. Target audiences were combined in this section for clarity. Source control BMPs is added a BMP to promote.

S5.C.1.b: Requires a new evaluation of the on-going behavior change program to determine program effectiveness and the next steps. Using this evaluation, Permittees will design the next iteration of the program using community-based social marketing methods to develop a strategy and schedule. Three different options to proceed are offered:

i. Develop a strategy and schedule to more effectively implement the existing program, or

This option is to refine the existing, ongoing, behavior change program with the *inclusion* of community based social marketing methods. This includes, if not part of the program already, a plan to evaluate the effectiveness of the program *going forward*.

ii. Develop a strategy and schedule to expand the existing program to a new target audience or BMPs; or

This option is to expand the existing, ongoing behavior change program to a new audience with the same BMP, or same audience but a new BMP may be a better fit or more effective at achieving the desired behavior change.

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

This option is to develop a new approach for the behavior change program, focusing on a new audience and BMP than the existing program.

Solely relying on providing information is not adequate to changing the behavior of individuals. Community-based social marketing is a Best Management Practice to promoting and achieving behavior change. Community-based social marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers (McKenzie-Mohr 2011). Community-based social marketing is pragmatic and generally involves:

- identifying the barriers for a specific demographic (target audience) to a desired behavior
- developing and piloting a program to overcome these barriers

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- implementing the program across a community
- evaluating the effectiveness of the program

S5.C.1.c: provides the date by which the strategy developed under S5.C.1.b must begin to be implemented. This does not necessarily mean when a new or refined program must roll out to the target audience, but may include the start of a survey or focus groups of the target audience or other early tasks that inform the behavior change program.

S5.C.1.d: Provides the due date to report on the effectiveness of the strategy and any potential changes to improve effectiveness of the behavior change program. This provision provides time for the program to develop and be implemented, with time to evaluate and report on the effectiveness of the behavior change program – or how well did the target audience receive the message and change their behavior to the desired actions?

Please consider and comment on whether the timeframe provided above in this preliminary draft is appropriate and compliance with this schedule is feasible. If not, please explain.

S5.C.1.e: Describes the stewardship element of the program. Revisions added for clarification.

IV. Why these proposed changes to Ed & O?

Ecology received input from Permittees, the regional education and outreach group- STORM, and environmental groups, which recommend changes to the education and outreach program. Significant issues raised include:

- the need to focus the program on known local water quality problems,
- refine the Phase I behavior change section – specifically because this section of the permit requires significant time and resources to create and implement behavior change campaigns for each of the target audiences and best management practices (BMPs). The requirement to address the full list was diluting the effectiveness of the program overall.

After considering the comments, existing permit language, as well as permit submittals related to the education and outreach programs, Ecology finds it important to align the Phase I and Phase II permit requirements so that partnerships between Phase I and Phase II permittees can continue to leverage resources, as well as provide consistent programs to the regions. The preliminary permit language clarifies that the selection of the target audiences and topics be based on local water quality issues. In order to instill consistency in the process for implementing a behavior change campaign, community-based social marketing, a best management practice for establishing behavior change, is called out specifically as the process to follow.

V. Resources on CBSM

- [Getting Your Feet Wet with Social Marketing](#)
by Jack Wilbur, Utah Department of Agriculture and Food

- [Community Based Social Marketing](#) - based on the book by Doug McKenzie-Mohr
- [Tools of Change](#) - offers specific tools, case studies, and a planning guide for helping people take actions and adopt habits that promote health and/or are more environmentally-friendly.
- [Social Norms: An Underestimated and Underemployed Lever for Managing Climate Change](#) by Vladas Griskevicius, University of Minnesota, Robert B. Cialdini, Arizona State University, and Noah J. Goldstein, University of Chicago -This paper reviews numerous field experiments to "harness the power of social norms to influence pro-environmental behavior."
- [Social Marketing Strategies for Stormwater Business Outreach: Summary of Recent Research in the Puget Sound Region: Assistance for Developing and Implementing Local Programs](#) - This report summarizes findings from six different formative research projects recently completed in the Puget Sound region focusing on business practices that can pollute stormwater runoff. The report includes a summary of recommended and not recommended outreach strategies that have been tested through surveys, interviews, and focus groups as well as some that have been piloted and evaluated.

VI. References

McKenzie-Mohr, D. 2011. Fostering Sustainable behavior: an introduction to community-based social marketing, 3rd edition. New Society Publishers, Gabriola Island, B.C.

1. Public Education and Outreach

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;
- Affect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts; and
- Create stewardship opportunities.

~~reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities. The education program may be developed and implemented locally or regionally. Permittees may 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 affect behavior change.~~ Each Permittee that chooses to participate in regional collaboration shall implement what is developed regionally at their local jurisdiction.

Commented [AD1]: This language may be more appropriate for Fact Sheet.

The minimum performance measures are:

- a. Each Permittee shall ~~provide~~ implement an education and outreach program for the area served by the MS4. ~~The program shall be designed to educate target audiences about the~~ The program design must be based on local water quality and demographic information to identify high priority target audiences, subject areas, and/or BMPs. ~~stormwater problem and provide specific actions they can follow to minimize the problem.¹~~
 - i. General awareness. To build general awareness, Permittees shall select ~~from the following~~ at a minimum one target audiences and one subject areas from either (a) or (b):
 - (a) Target audiences: General public (including school age children), and businesses (including home-based, and mobile businesses). Subject areas:
 - General impacts of stormwater on surface waters.
 - Impacts from impervious surfaces.
 - ~~Impacts of illicit discharges and how to report them.~~
 - Low impact development (LID) principles and LID BMPs.

Commented [BA2]: Change date in footnote

¹ New Permittees shall begin implementing the requirements of S5.C.1 no later than **August 1, 2015.**

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- Opportunities to become involved in stewardship activities.
- (b) Target audiences: Engineers, contractors, developers and land use planners. Subject areas:
 - Technical standards for stormwater site and erosion control plans.
 - LID principles and LID BMPs.
 - Stormwater treatment and flow control BMPs/facilities.
- ii. Behavior change. To effect behavior change, Permittees shall select, at a minimum, from the following one target audiences and BMP~~(s)~~:
 - (a) Target Audiences: ~~General public~~ Residents, landscapers, property managers/owners, ~~(which may include school age children),~~ businesses (including home-based and mobile businesses). BMPs:
 - Use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials.
 - ~~Equipment maintenance.~~
 - Prevention of illicit discharges.
 - ~~Residents, landscapers and property managers/owners~~
 - Yard care techniques protective of water quality.
 - Use and storage of pesticides and fertilizers and other household chemicals.
 - Carpet cleaning and auto repair and maintenance.
 - Vehicle, equipment and home/building maintenance.
 - Pet waste management and disposal.
 - LID principles and LID BMPs.
 - Stormwater facility maintenance, including LID facilities.
 - Dumpster and trash compactor maintenance.

Commented [BA3]: Mentioned in a later bullet. Strike.

Commented [BA4]: Combine with other use and storage BMP, above?

Commented [BA5]: Why are these combined?

City of Kirkland Comments

Western WA PHASE II Municipal Stormwater Permit
Preliminary Draft Permit Section: Education & Outreach S5.C.1

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- (Audience specific) Source control BMPs (refer to S5.C.X).

b. No later than April 3rd, 2020 [~nine mos from eff. Date], each Permittee shall conduct a new evaluation of the effectiveness of the ongoing behavior change program (required under S5.C.1.a.ii of the 2013-2018 Permit). Permittees shall document lessons learned and recommendations for which option to select from S5.C.1.b.i-iii.

Commented [BA6]: Consider including milestones without dates

Based on this evaluation, [within 18 months from eff. date] by February 1, 2021, each Permittee shall use community-based social marketing methods² or an equivalent methodology, including the development of a program evaluation plan, or equivalent, to:

Commented [BA7]: Use broader definition of social marketing

- Develop a strategy and schedule to more effectively implement the existing program, including a program evaluation plan, or equivalent; or
- Develop a strategy and schedule to expand the existing program to a new target audience or BMPs, including a program evaluation plan, or equivalent; or
- Develop a strategy and schedule for a new target audience and BMP behavior change campaign, including a program evaluation plan, or equivalent.

Commented [BA8]: Establish different dates for C & D based on which option pursued?

c. No later than April 1, 2021, begin to implement the strategy developed in S5.C.1.b.

b.d. 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 planned to the program in order to be more effective; describe the strategies and process to achieve the results.

Commented [AD9]: Is this a second evaluation within this permit cycle?

Commented [BA10]: Suggested changes for the future?

² Community-based social marketing: A systematic way to change the behavior of communities to reduce their impact on the environment. Realizing that providing information is usually not sufficient to initiate behavior change, community-based social marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.

City of Kirkland Comments

Western WA PHASE II Municipal Stormwater Permit
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Note to reader: Please consider and comment on whether the timeframe provided above is appropriate and compliance with this schedule is feasible. If not, please explain.

~~e.e. Stewardship.~~ Each Permittee shall create 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.

~~d. Each Permittee shall measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. No later than February 2, 2016, Permittees shall use the resulting measurements to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.³ Permittees may meet this requirement individually or as a member of a regional group.~~

³ By no later than August 1, 2017, new Permittees shall begin using the results of measurements to direct education and outreach resources more effectively, as well as to evaluate changes in adopted behaviors.

Illicit Discharge Detection and Elimination (IDDE)

Phase I and Western Washington Phase II Municipal Stormwater Permits

Proposed approach to update the IDDE tracking and reporting requirements for the 2019 permit reissuance.

I. Introduction

The Washington Department of Ecology (Ecology) is working on reissuing the Phase I and Western Washington Phase II Municipal Stormwater Permit. Ecology prepared preliminary draft permit language of specific permit sections and is accepting informal comments until midnight, January 15, 2018. Send your comments to: <http://ws.ecology.commentinput.com/?id=tkx29>

Or mail hard copies to:

Municipal Stormwater Comments
WA Department of Ecology
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PO Box 47696
Olympia, WA 98504-7696

II. Proposal

This is a summary of several changes Ecology is proposing related to Permittees' IDDE permit requirements. Proposed permit language for the entire IDDE permit section will be released in spring 2018.

Proposed changes to Phase II permit requirements

1. Move mapping requirements from S5.C.3 to a new mapping section under S5.C..

Proposed changes to Phase I and WWA Phase II permits:

2. Proposed new Phase II S5.C.3.f / Phase I S5.C.8.g language in red:
 - Recordkeeping: Each Permittee shall track and maintain records of the activities conducted to meet the requirements of this section. In the annual report, each permittee shall submit data for all of the potential illicit discharges into their MS4, including spills and illicit connections, found by or reported to the Permittee during the previous calendar year. The summary shall include the information and formatting specified in WQWebIDDE. Applicable data shall be reported for all such potential incidents discharges, regardless of whether G3 notification was required, whether an illicit discharge was confirmed, or whether follow-up action was required by the Permittee. Each permittee may either use their own system or WQWebIDDE for recording this data. Final submittal must follow the schema described in WQWebIDDE.

Commented [AD1]: The permit section opens with "The SWMP shall include an ongoing program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4." Is important to stay focused on this. Adding the clause "into their MS4" is a helpful reminder.

City of Kirkland Comments

Phase I and Western WA Phase II Municipal Stormwater Permit
Preliminary Draft Permit Section: IDDE tracking and reporting
10/3/17

Note to readers: An IDDE incident tracking and reporting annual report question is in the current permit. Ecology issued guidance for permittees to meet this requirement but it was used by few permittees. Ecology wants the requirement to be meaningful and useful. The Stormwater Work Group stakeholder committee involved permittees in providing helpful definition and clarity to the expected reporting requirements. Ecology's IT department is building a form in the web portal that is primarily intended for use by permittees with smaller numbers (approximately <50) of incidents. Permittees with their own data bases should have their IT departments take a look at the data schema provided with this informal draft permit language.

3. Revised annual report question Phase II Q20/ Phase I Q48:

Q20/48. Attach ~~a summary of~~ a zipped xml file with data describing the actions taken to investigate, characterize, trace and eliminate each potential illicit discharge found by or reported to the permittee. For each confirmed illicit discharge, include a description of actions according to the required timeline per ~~S5.C.3.d.vi/S5.C.8.d.iv.~~ The submittal must include all of the applicable information and must follow the schema described in WQWebIDDE.

4. Delete/remove annual report questions (PH II/PH I: Q15b/44b, Q19/47, and Q61/87.

Comments from City of Kirkland

IDDE Reporting Schema

Shane Homan for Karen Dinicola

V0.2

[Page 2: English](#)

[Page 5: Schema](#)

[Page 17: Example](#)

Comments from City of Kirkland

IDDE Questions and Answers

1. Jurisdiction name (Permit Number)
2. Incident ID assigned by jurisdiction
3. Date incident reported
4. Date to begin response
5. Date to end response
6. Date of final resolution
 - Transferred to another party?
7. Discharge to MS4?
 - Yes
 - a. Estimated Quantity
 - Unknown
 - Sheen
 - Less than 10 Gallons
 - 10 to 100 Gallons
 - 100 to 1,000 Gallons
 - 1,000 to 10,000 Gallons
 - Greater than 10,000 Gallons
 - b. Discharge Frequency
 - Continuous or Ongoing
 - Intermittent
 - One-Time
 - No
 - Discharge Cleaned Up
 - Discharge to Combined sewer
 - Discharge to Private or other sewer
 - Other
 - Explain
 - Unknown
8. G3 notification?
 - Yes
 - ERTS case number
 - No
9. Incident location
 - Address
 - Street
 - City
 - State
 - Zip
 - Nearest Intersection
 - Tax Parcel
 - Latitude/Longitude
 - Latitude
 - Longitude
10. How was the incident discovered?
 - pollution hotline
 - (includes phone and/or web and/or mobile app)
 - direct report to staff
 - staff referral
 - other agency referral
 - ERTS referral
 - IDDE field observation
 - inspection
 - business
 - construction
 - catch basin or manhole
 - outfall or other MS4
 - stormwater BMP/facility
 - other
 - Explain
 - other
 - explain
11. Pollutants identified:
 - none found
 - unconfirmed
 - not identified
 - unspecified
 - vehicle oil, fuel, or other lubricant
 - antifreeze or other coolant
 - sediment/soil
 - sewage/septage
 - solid waste/trash
 - food waste or oil
 - yard waste or other plant or wood waste
 - household or industrial chemical
 - Explain
 - carpet cleaning waste
 - fertilizer

Commented [AD1]: Why is this important to track? Could handle as sub to Date to end response: [DATE] or [] refer to another party

Commented [AD3]: These do not necessarily mean the same thing. Just say "Continuous"?

Commented [AD2]: If answer is NO, then is outside MS4 realm. No additional info should be required for these discharges under the permit.

Commented [AD4]: Allow for either the address OR lat/long. Do not require both.

Commented [AD5]: Why is this detail needed? Consider striking.

Commented [AD6]: List is too long. Select top ten. Allow rest to be covered under "Other: _____" Allow for multiple to be selected.

Commented [AD7]: Allow this to close out report. If none found, no followup to be conducted.

Commented [AD8]: Consolidate into single line: "Not identified."

Commented [AD9]: Combine into one: "vehicle fluids"

Comments from City of Kirkland

- pesticide or herbicide
- unknown bacteria source
- pet waste
- soap/detergent
- fire-fighting foam
- other or unknown foam
- heating oil or kerosene
- roofing or road tar
- cement, concrete, lime, or plaster
- paint (oil based)
- paint (latex)
- PCBs
- refrigerant
- chlorinated water
- other

12. Source or ~~cause~~Activity:

- n/a
- allowable discharge
 - Diverted stream flow
 - Flow from riparian habitat or wetland
 - Uncontaminated ground water or spring water
 - Foundation or footing drain
 - Uncontaminated water from crawl space pump
 - Air conditioning condensation
 - Irrigation water from agricultural source
 - Emergency firefighting
- conditionally allowed discharge
 - Potable water
 - Water line flushing or testing
 - Lawn watering or other irrigation
 - Dechlorinated pool/spa water
 - Street/sidewalk wash water
- not identified
- illicit connection
- dumping
- spill (unknown source)
- vehicle collision/accident
- construction activity
- construction BMP failure
- structural BMP failure
- runoff due to drainage or grade conditions

~~stormwater or flood water~~

- groundwater pumping
- broken or clogged water or sewer line
- septic system
- leaking or abandoned container/dumpster
- non-emergency firefighting or training
- fueling
- auto repair
- vehicle washing
- vehicle leakage/fluids
- equipment cleaning
- pressure washing
- drive-thru
- mobile business
- retail operations
- restaurant
- logging
- livestock
- other

13. Source tracing:

- n/a
- visual observation
- map analysis
- ~~further inspection or reconnaissance~~
- indicator testing
- dye testing
- pressure testing
- smoke testing
- video inspection
- canine detection
- optical brightener
- sand bagging
- smell/odor
- other

14. Indicator testing:

- n/a

Commented [AD10]: Use same approach as above. List is too long. Select top 10, then provide "Other: _____" category.

Commented [AD11]: Why is this detail needed. Strike sub-bullets.

Commented [AD12]: Same as above. Strike sub-bullets?

Commented [AD13]: How different from n/a? Strike one of these.

Commented [AD14]: Uncontaminated pumped groundwater is allowable. Strike?

Commented [AD15]: ???

Commented [AD16]: In MS4 area?

Commented [AD17]: Click all that apply?

Commented [AD18]: Covered by other activities

Commented [AD19]: Should this be sub-bullets to indicator testing (above). If so, strike "N/A" since it only opens if you click the indicator testing box...

Comments from City of Kirkland

- flow/discharge
- sheen/oil
- floatables
- detergent or surfactants
- ammonia
- color
- odor
- pH
- temperature
- turbidity
- hardness
- nitrates
- potassium
- specific conductivity
- bacteria
- chloride/chlorine
- fluoride
- carbon monoxide
- hydrogen sulfide
- other
 - Explain

15. Correction/elimination methods:

- no action needed
 - Explain
- clean-up
- education/technical assistance
- add or improve source control BMP
- focus on structural
- behavioral or BMP operation modification
- focus on operational
- enforcement:
 - verbal notice
 - written warning
 - correction notice
 - stop work order
 - legal notice
 - penalty or fine
- referred to other agency or department
- ~~follow-up or further investigation~~
- problem not abated
 - Explain
- Other
 - Explain

16. Field notes, explanations, and/or other comments:

Commented [AD20]: Use top 10 approach described elsewhere?

Commented [AD21]: In the MS4?

Commented [AD22]: Click all that apply.

Commented [AD23]: All seem related to source control BMPs. Not sure what is meant by "focus on..." bullet points

Commented [AD24]: Why is this detail needed? Is it sufficient to know that enforcement was taken (without detailing what type of enforcement tool was used?)

Commented [AD25]: How different from Q6? Strike?

Commented [AD26]: Since you don't close out report until either resolved or referred, this is unnecessary. Assume followup taking place until issue is resolved/case is closed.

Comments from City of Kirkland

XML Schema (IDDE.xsd)

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
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    </xs:complexType>
  </xs:element>

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    </xs:annotation>
    <xs:all>
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      <xs:element maxOccurs="1" minOccurs="0" name="DateResponseBegin" type="xs:date">
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          <xs:documentation>Date incident response began</xs:documentation>
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      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" name="DateResponseEnd" type="xs:date">
        <xs:annotation>
          <xs:documentation>Date incident response ended</xs:documentation>
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      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" name="DateResolved" type="Resolution">
        <xs:annotation>
          <xs:documentation>Date incident resolved, was it transferred</xs:documentation>
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      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" name="Discharge" type="Discharge">
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          <xs:documentation>Discharge to MS4 details</xs:documentation>
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      <xs:element maxOccurs="1" minOccurs="0" name="G3" type="G3Notification">
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number?</xs:documentation>
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      <xs:element maxOccurs="1" minOccurs="0" name="Location" type="Location">
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          <xs:documentation>Location of discharge</xs:documentation>
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      <xs:element maxOccurs="1" minOccurs="0" name="Discovereds" type="Discovered">
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      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" name="Indicators" type="Indicator">
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      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" name="Corrections" type="Correction">
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        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" name="Notes" type="xs:string">
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        </xs:annotation>
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    </xs:all>
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      <xs:annotation>
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  </xs:complexType>
</xs:schema>
```

Comments from City of Kirkland

```
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  <xs:annotation>
    <xs:documentation>Incident ID</xs:documentation>
  </xs:annotation>
</xs:attribute>
</xs:complexType>
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    <xs:documentation>Incident resolution</xs:documentation>
  </xs:annotation>
  <xs:attribute name="date" type="xs:date"/>
  <xs:attribute name="transferred" type="xs:string">
    <xs:annotation>
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    </xs:annotation>
  </xs:attribute>
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    <xs:element name="No" type="NoMS4Discharge"/>
    <xs:element name="Yes" type="YesMS4Discharge"/>
    <xs:element name="Unknown" type="UnknownMS4Discharge"/>
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  <xs:attribute name="type" type="LocationType"/>
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        <xs:sequence>
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  </xs:sequence>
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  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="Source">
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  </xs:sequence>
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  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="Trace">
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</xs:complexType>
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```

Comments from City of Kirkland

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        <xs:sequence>
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  </xs:sequence>
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    <xs:documentation>No discharge reached MS4</xs:documentation>
  </xs:annotation>
  <xs:sequence>
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  <xs:attribute name="reason" type="NoMs4Reason"/>
</xs:complexType>
<xs:complexType name="YesMS4Discharge">
  <xs:annotation>
    <xs:documentation>Discharge reached MS4</xs:documentation>
  </xs:annotation>
  <xs:attribute name="quantity" type="DischargeQuantity"/>
  <xs:attribute name="frequency" type="DischargeFrequency"/>
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  </xs:annotation>
</xs:complexType>
<xs:simpleType name="NoMs4Reason">
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        <xs:documentation>Cleaned Up</xs:documentation>
      </xs:annotation>
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    <xs:enumeration value="2">
      <xs:annotation>
        <xs:documentation>Combined Sewer</xs:documentation>
      </xs:annotation>
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    <xs:enumeration value="3">
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        <xs:documentation>Private Sewer</xs:documentation>
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        <xs:documentation>Sheen</xs:documentation>
      </xs:annotation>
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    <xs:enumeration value="2">
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        <xs:documentation>0-10 Gallons</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="3">
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        <xs:documentation>10-100 Gallons</xs:documentation>
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</xs:simpleType>
```

Comments from City of Kirkland

```
        </xs:annotation>
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    </xs:annotation>
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  <xs:enumeration value="6">
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Comments from City of Kirkland

```
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  <xs:annotation>
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```

Comments from City of Kirkland

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    <xs:documentation>Solid Waste or Trash</xs:documentation>
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</xs:enumeration>
<xs:enumeration value="10">
  <xs:annotation>
    <xs:documentation>Yard Waste</xs:documentation>
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  <xs:annotation>
    <xs:documentation>Cement, Concrete, Lime, or Plaster</xs:documentation>
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Comments from City of Kirkland

```
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        <xs:documentation>Other</xs:documentation>
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      </xs:annotation>
    </xs:enumeration>
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    <xs:enumeration value="2">
      <xs:annotation>
        <xs:documentation>N/A</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="3">
      <xs:annotation>
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      </xs:annotation>
    </xs:enumeration>
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wetland</xs:documentation>
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        <xs:documentation>Allowable Discharge: Uncontaminated ground water or spring
water</xs:documentation>
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        <xs:documentation>Allowable Discharge: Foundation or footing drain</xs:documentation>
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        <xs:documentation>Allowable Discharge: Uncontaminated water from crawl space
pump</xs:documentation>
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    <xs:enumeration value="8">
      <xs:annotation>
        <xs:documentation>Allowable Discharge: Air Conditioning
Condensation</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="9">
      <xs:annotation>
        <xs:documentation>Allowable Discharge: Irrigation water from agricultural
source</xs:documentation>
      </xs:annotation>
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    <xs:enumeration value="10">
      <xs:annotation>
        <xs:documentation>Allowable Discharge: Emergency Firefighting</xs:documentation>
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    </xs:enumeration>
    <xs:enumeration value="11">
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        <xs:documentation>Conditionally Allowable Discharge: Potable water</xs:documentation>
      </xs:annotation>
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```

Comments from City of Kirkland

```

    <xs:documentation>Conditionally Allowable Discharge: Water line flushing or
testing</xs:documentation>
  </xs:annotation>
</xs:enumeration>
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  <xs:annotation>
    <xs:documentation>Conditionally Allowable Discharge: Lawn watering or other
irrigation</xs:documentation>
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  <xs:annotation>
    <xs:documentation>Conditionally Allowable Discharge: Dechlorinated pool or spa
water</xs:documentation>
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<xs:enumeration value="15">
  <xs:annotation>
    <xs:documentation>Conditionally Allowable Discharge: Street/sidewalk wash
water</xs:documentation>
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<xs:enumeration value="19">
  <xs:annotation>
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  </xs:annotation>
</xs:enumeration>
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  <xs:annotation>
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Comments from City of Kirkland

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Comments from City of Kirkland

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Comments from City of Kirkland

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Comments from City of Kirkland

Example XML

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```

Comments from City of Kirkland

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Comments from City of Kirkland

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Source Control Program for Existing Development (WWA Phase II)

Preliminary draft “fact sheet”

I. Introduction

The Washington Department of Ecology (Ecology) is working on reissuing the Western Washington Phase II Municipal Stormwater Permit. Ecology prepared preliminary draft permit language of specific permit sections and is accepting informal comments until 11:59 p.m. **January 19, 2018.**

Send your comments to: <http://ws.ecology.commentinput.com/?id=tkx29>

Or mail hard copies to:

Municipal Stormwater Comments
WA Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

II. Proposal

Ecology proposes to add a “Source Control Program for Existing Development” to the Western Washington Phase II Municipal Stormwater Permit (Permit).

This program is modeled after the requirement in the Phase I permit.

III. What is a “source control program for existing development?”

The source control program for existing development (program) is a proactive, preventative, inspection-based program that is focused on addressing pollution from existing land use and activities that have the potential to release pollutants to the MS4. This program relies on local authority to inspect businesses and properties, and if necessary requires operation or structural source control BMPs in order to prevent pollution from entering the MS4.

Components of the program include:

- Authority to require the use of BMPs to address pollution from existing land use & activities
- Development of an inventory of businesses/properties
- Inspections
- Progressive compliance strategy, including authority to inspect and enforce
- Staff training
- Guide for creating the inventory (appendix)

IV. Why include this program in the Permit?

Ecology received input from a group of permittees that recommends adding this program to the Permit. At Ecology-held listening sessions on permit reissuance (in spring 2017), Ecology proposed adding this program to the Permit and the feedback was mixed. Some saw real value in adding this program as a means to be proactive in their community by:

- preventing illicit discharges.
- leveraging the IDDE field screening requirement.
- building relationships and sharing information.

Others were hesitant to endorse adding the program due to:

- lack of resources and cost effectiveness of program within small municipalities.
- concern of overlap with other inspection programs (e.g. health districts, industrial stormwater permit).
- preference for adding this program to Education and Outreach or relying on technical assistance only, rather than following a progressive compliance strategy to prevent pollution.

Preventing pollutants from coming into contact with stormwater and entering the MS4 is the best way to reduce impacts of municipal stormwater and thus protect receiving waters. This program has been effective within the Phase I permit coverage areas, as well as within Phase II communities implementing similar programs voluntarily. We expect better protection of receiving waters by expanding this program to all western Washington municipal stormwater permittees. The compliance strategy should include technical assistance and education and outreach as the first approach to gain compliance. Enforcement actions are only needed when other approaches are found to be ineffective. While each Permittee will need to have local authority to require the use of BMPs, Permittees may work together or form regional partnerships as a means to implement the inspection program locally.

V. Will there be a transition period to develop this program?

The proposed permit requirement provides a transition period to develop the program and begin inspections. This allows time to form regional partnerships to help meet this requirement. We propose:

- two years to adopt any necessary ordinances and develop the inventory of businesses.
- two and a half years to begin inspections.

These timeframes are based on the input Ecology received at the listening sessions. The number of annual inspections is equal to 20% of the businesses or properties on the inventory list. Follow-up inspections count towards the annual inspection rate. Furthermore, Permittees may prioritize inspections based on local priorities. If a jurisdiction knows that a health district or industrial stormwater inspector will inspect a particular business/property, the Permittee may choose to prioritize other businesses/properties to inspect.

VI. What is Ecology's Local Source Control Partnership?

Ecology's Hazardous Waste program coordinates a program known as the Local Source Control Partnership. Currently, the Local Source Control (LSC) Partnership is comprised of 20 local governments (cities, counties, and health districts), including a number of permittees. Through interagency

Western WA PHASE II Municipal Stormwater Permit
Preliminary Draft Permit Section: Source Control S5.C.X (proposed new section to add)

agreements with Ecology, the local jurisdictions receive funding to conduct site visits to small businesses. During the site visits, pollution prevention specialists show businesses how to properly manage their hazardous waste and help them diagnose and fix stormwater-related issues. The site visits, along with other pollution prevention activities conducted by the local jurisdictions, are designed to reduce or eliminate hazardous waste and pollutants at the source. When unable to resolve high priority environmental issues through technical assistance, the local pollution prevention specialists refer the issues to a local or state regulatory agency.

The LSC program does not include an enforcement component, and therefore does not fully meet this permit requirement.

VII. Resources

- Source Control Resources from Ecology's Hazardous Waste Local Source Control program <http://www.ecy.wa.gov/programs/hwtr/lsp/trngws.html>
 - Pollution prevention: <http://www.ecy.wa.gov/programs/hwtr/reducewaste.html>
 - Safer Alternatives: <http://www.ecy.wa.gov/programs/hwtr/p2/SaferAlts.html>

1. Source Control Program for Existing Development

- a. Each Permittee shall implement a program to prevent and reduce pollutants in runoff from areas that discharge to MS4s. The program shall include:
 - i. Application of operational and structural source control BMPs, and, if necessary, treatment BMPs/facilities to pollution generating sources associated with existing land uses and activities.
 - ii. Inspections of pollutant generating sources at publically and privately owned commercial and industrial properties to enforce implementation of required BMPs to control pollution discharging into the Permittee's MS4.
 - iii. Application and enforcement of local ordinances at sites, identified pursuant to S5.C.6.b.ii, including sites with discharges authorized by a separate NPDES permit. Permittees that are in compliance with the terms of this permit will not be held liable by Ecology for water quality standard violations or receiving water impacts caused by industries and other Permittees covered, or which should be covered under an NPDES permit issued by Ecology.
 - iv. Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizer discharging into MS4s owned or operated by the Permittee.

Commented [AD1]: I think you mean pollutANT

Commented [AD2]: Update citation

- b. Minimum performance measures:
 - i. No later than August 1, 2021, Permittees shall adopt and begin enforcement of an ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (see Appendix X to identify pollutant generating sources).

Commented [AD3]: Language is unclear whether the BMPs need to be in place at all sites by this date or whether can be required in response to source control visit...? Also, if progressive enforcement policy is to be implemented beginning 1/1/2022, how will this enforcement date work?

The requirements of this subsection are met by using the source control BMPs in Volume IV of the Stormwater Management Manual for Western Washington, or a functionally equivalent manual approved by Ecology.

Operational source control BMPs must be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or both, shall be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with S5.C.6.b.iv., below.

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- ii. No later than August 1, 2021, the Permittees shall establish an inventory that identifies publically and privately owned commercial, and industrial properties which have the potential to generate pollutants to the Permittee's MS4. The inventory shall include:

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- (a) Businesses and/or properties identified based on the presence of activities that are pollutant generating (refer to Appendix X).
 - (b) Complaint-based response to identify other pollutant generating sources, such as: mobile or home-based businesses and multifamily properties.
- iii. No later than January 1, 2022, Permittees shall begin to implement an inspection program for sites identified pursuant to S5.C.6.b.ii. above.
- (a) All identified sites with a business address within the Permittee's jurisdiction ~~must shall~~ be ~~provided~~ offered information about activities that may generate pollutants and the source control requirements applicable to those activities. This information must be provided by mail, telephone, electronic communications, or in person. This information may be provided all at one time or spread out over the permit term to allow for tailoring and distribution of the information during site inspections.
 - (b) The Permittee shall annually complete the number of inspections equal to 20% of the businesses and/or properties listed in their source control inventory to assure BMP effectiveness and compliance with source control requirements. The Permittee may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.
 - (c) Each Permittee shall inspect 100% of sites identified through legitimate complaints.
- iv. No later than January 1, 2022, each Permittee shall implement a progressive enforcement policy to require sites to come into compliance with stormwater requirements within a reasonable time period as specified below:
- (a) If the Permittee determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s) which may include: phone calls, reminder letters or follow-up inspections.
 - (b) When a Permittee determines that a facility has failed to adequately implement BMPs after a follow-up inspection, the Permittee shall take enforcement action as established through authority in its municipal code and ordinances, or through the judicial system.
 - (c) Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring facilities into compliance. Each Permittee must also maintain records of sites that are not inspected because the property owner denies entry.

Commented [AD4]: Over what time period? Maybe address via guidance.

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- (d) A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.

- v. Permittees shall train staff who are responsible for implementing the source control program to conduct these activities. The ongoing training program shall cover the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures. Follow-up training ~~must~~shall be provided as needed to address changes in procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.