SWIM
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Model Policy
for
Sewage Spill Public Alerts

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Introduction

When drafting your own sewage spill alert policy, this introductory section should be omitted.

Wastewater is one of the largest sources of surface water pollution in Canada[1]. Wastewater systems collect sewage from domestic (homes and apartments) and industrial (businesses and factories) buildings. Wastewater is usually transported to a treatment facility, where it is filtered and purified before being released back into the natural environment.

Unfortunately raw sewage and partially-treated sewage flows into Canadian waters all too often. Spills happen on a daily basis across the country. Spills may be caused by flooding, capacity problems, human error, or maintenance problems. The result is always the same: environmental degradation and threats to human health.

Sewage contains a variety of contaminants, including bacteria, viruses, pharmaceuticals, metals, hydrocarbons, and microplastics. Those contaminants harm fish habitat, affect reproduction, and build up in fish and birds. They also pose a threat to public health. Each year in Canada, thousands of people will experience rash, gastrointestinal illness, or other health impacts after coming into contact with contaminated waters.

This Model Policy was created to help governments, utilities, and nonprofit organizations ensure that the public is alerted whenever untreated or partially-treated sewage is spilled. The Summary explains each section of the Model Policy for your reference; it is not intended to be included in your draft policy.

The first seven provisions in the policy, if implemented together, form the ideal model for sewage spill alerts. Some provisions (e.g., #1 and #3) may be implemented individually and swiftly in response to specific local needs. The Model Policy was designed in Ontario with combined sewer systems in mind, but it can be adapted anywhere that sewage spills happen. Readers are encouraged to adapt the Model in any way that helps to eliminate sewage pollution and protect public health.

Full transparency around when, where, and why sewage spills are happening is key to ensuring swimmable, drinkable, fishable water. Sewage spill alerts protect public health in the short term by giving people the information they need to avoid contaminated areas or take extra precautions to reduce their risk of contracting waterborne illnesses.

Sewage spill alerts will protect waterbodies in the long term by ensuring that government and the public have a full and accurate understanding of the scale of the sewage spill issue in their communities. Having access to complete, timely, accurate information about sewage spills helps the public to understand the need for investment in infrastructure and other environmental protection programs. It also ensures that infrastructure programs are delivering the promised results, ensuring responsible spending.

[1] Government of Canada (2010) Proposed Wastewater Systems Effluent Regulations - Canada Gazette, 144(12) March 21, 2010.

Summary of the model policy for sewage spill alerts

When drafting your own sewage spill alert policy, this summary section should be omitted.

This model policy is meant to inform the development of provincial regulations or municipal bylaws for the proactive public reporting of all sewage discharges. It was originally drafted to ensure that Ontario would not lag behind its American counterparts on the Great Lakes; on January 8, 2018, the United States Environmental Protection Agency published a formal rule requiring public notice of combined sewage spills on the Great Lakes. At the request of stakeholders in Ontario, the model policy below was broadened to address a wider range of possible sewage spill occurrences.

The model policy focuses on the release of all untreated sewage from points **upstream** from wastewater facilities. These include: combined sewer overflows (CSO), which release a combination of sanitary sewage and stormwater; overflows at pumping stations and wastewater collection systems; and other sewer malfunctions or capacity problems that result in the discharge of sewage into local waterbodies. The model policy contains appendices illustrating how sewage spill alerts and reports could look. In addition to public alerts, the policy also requires physical signage and the release of maps of sewage outfalls to raise public awareness of the sewer infrastructure in their communities.

In order to understand the cumulative impacts of all sewage spills to local waterways, treatment plant bypass reporting has also been included in real-time and monthly reporting. Most wastewater treatment facilities are regulated by provincial and/or federal laws and reporting requirements may vary by jurisdiction, but the information requested in the model policy should be available across Ontario and in other parts of Canada. The policy requires three stages of sewage release reporting: real-time, monthly, and annual to provide members of the public with an understanding of the occurrence and impacts of sewage release events. Three stage reporting is part of the US Environmental Protection Agency regulations and is supported by existing federal and Ontario record-keeping requirements of sewage system owners and operators.

Below is a brief summary and explanation of each provision in the model policy.

Provision 1: Physical signage of all sewage outfalls is required. Physical signage must contain the following information: the name of the sewage pipe operator and a phone number at which they can be reached; a description of the wastewater in the pipe; warnings about health consequences of coming into contact with raw or partially treated sewage, and instructions for how members of the public can receive real-time sewage release alerts.

> *Rationale: to help prevent members of the public from coming into contact with raw/partially treated sewage. Signage will also raise public awareness of sewer infrastructure and the waters affected by sewage spill events.*

Provision 2: Maps of all sewage outfalls must be made publicly available. These maps must contain the following information: all combined sewer system (CSS) outfall locations; all sewage treatment plant discharge points; all discharge points from sewage collection systems and pumping stations; any other sanitary sewer outfalls; and all waterbodies and public recreational beaches that receive wastewater from these outfalls.

Rationale: to give members of the public a bigger-picture understanding of sewer infrastructure in their communities and the scale of potential cumulative impacts of CSOs and other types of sewage releases.

Provision 3: Public must be notified of all sewage release events in real-time. This involves two real-time alerts: one for the commencement of a release event, and another at the cessation of the event. Alerts must be distributed immediately (or at least within 4 hours) online, via emails or text (to members of the public who subscribe), and on local radio stations. These alerts must contain: the location of release events, the names of identified receiving waters and any potentially affected public recreational beaches; the date and time of the commencement and cessation of the event and its total duration; and warnings for the public to avoid contact with contaminated waters for at least 48 hours after the cessation of the event. If known, the cause and total volume of the event must also be disclosed.

Rationale: to ensure that members of the public can make informed decisions about whether they should use local waterbodies for recreation.

Provision 4: Public must be notified of monthly trends in sewage release events. These reports must distinguish between the different types of release event and contain: the location of all sewage release events that occurred that month, the names of receiving waterbodies and affected public recreational beaches; dates, times, and durations of each sewage spill event; measured or estimated volumes of discharges for each release event; the level of treatment the discharge received; and the cause of the event. If sampling was taken of sewage discharges or receiving waters after a release event, the results must be disclosed. If flow rates in sewage pipes were measured or modelled, those results must also be disclosed.

Rationale: to allow members of the public to see shorter-term trends in sewage releases and have more timely access to the results of any water quality testing or other information about specific release events that may not be available in real-time reports.

Provision 5: Public must be notified of annual trends in sewage release events. These reports must contain: the total monthly volume of CSO releases; total number of days each month on which CSO events occurred; total volume of non-CSO releases; measurements or modelling of CSS flow rates in response to weather conditions; updates concerning the implementation of Pollution Prevention and Control Plans; and summaries of the year's monthly sewage release reports.

Rationale: to allow members of the public to see longer-term trends in sewage releases. Information requirements for annual reports also ensure accountability of CSS owner/operators, requiring them to report on ways in which they actively minimize the occurrence of, and mitigate the impacts of, CSO events.

Provision 6: Municipal Pollution Prevention and Control Plans must be made publicly available. These plans are required in Ontario under provincial regulations governing wastewater treatment systems. Similar plans may be required in other jurisdictions. In any case, a control plan is a document that outlines the plan to eliminate combined sewage overflows, a leading cause of sewage spills.

Rationale: Releasing these plans and reporting on the plans' implementation in annual reports ensures greater municipal accountability and can increase the political will to address CSS and other sewage infrastructure failures.

Provision 7: Public consultation is required in the development of local sewage spill alerts.

> *Rationale: as each municipality's sewer infrastructure and administrative capacity will differ significantly, the success and appropriateness of local sewage alert protocols would be best ensured by involving input from local community members who can tailor protocols to distinct local needs and realities.*

Provision 8 contains a glossary of relevant terms.

It is important to note that the information gathering requirements in this model policy are not more onerous than information already required by federal or Ontario regulations. For the most part, owner/operators of sewage systems are required to keep most of the abovementioned information in their own records and within the same timeframes specified in this model policy.

The main difference between current legal requirements and this model policy is the added requirement for information to be collected on all types of sewage release (not just sewage treatment plants and CSOs) and that it be publicly disclosed in a timely manner.

The appendices in this model are meant to help facilitate and support proactive public disclosure, thus helping agencies implement a similar policy easily.

For more information about CSO reporting specifically and ways to mitigate the impacts of CSOs, please see:

- Ottawa Riverkeeper, "Tackling Combined Sewer Overflows: A Toolkit for Community Action", online: https://www.ottawariverkeeper.ca/publications-2/combined-sewer-overflow-toolkit/
- Alliance for the Great Lakes, "Reducing Combined Sewer Overflows in the Great Lakes: Why Investing in Infrastructure is Critical to Improving Water Quality", online: https://greatlakes.org/wp-content/uploads/2016/08/AGL_Reducing_CSO__14_FINAL-1.pdf
- Ecojustice, "Green Cities, Great Lakes: Using Green Infrastructure to Reduce Combined Sewer Overflows", online: https://www.ecojustice.ca/wp-content/uploads/2014/11/Green-Cities-Great-Lakes-2008.pdf

Sewage spill public alerts: a model policy

Provision 1: Physical signage

1. Clear signage required in the vicinity of all sewage outfalls*

For all sewage outfalls (both exposed and submerged) there must be clear signage identifying the outfall and its contents to the public.

a. Signage must be clear and visible to members of the public

   For exposed outfalls, signs must be in close proximity to the discharge point. For submerged outfalls, signs must be located along the shoreline closest to the outfall.

b. Mandatory contents of signage:

   i. Name of sewer pipe owner/operator;
   ii. Phone number for CSS owner/operator;
   iii. Description of effluent (e.g. sewage/human waste and stormwater);
   iv. A notice that members of the public should avoid contact with wastewater;
   v. A notice that members of the public should avoid recreation in local receiving waters around the outfall for at least 48 hours after the cessation of any wastewater discharges;
   vi. A notice that sewage release events are publicly reported in real-time online and on local radio stations, including the name/ URL of the relevant website and/or radio station;
   vii. Instructions for how members of the public may subscribe to real-time public sewage release alerts; and
   viii. Any further information deemed necessary, as determined by public consultation.

*See Appendix I for a template for physical sewage outfall signage.

Provision 2: Maps

2. Publicly accessible online maps of sewage outfall locations required

All sewage system owner/operators must make a map of all sewage outfall locations available to the public online. Copies of these maps must also be available at designated municipal buildings or civic centres.

a. Mandatory contents of sewage outfall maps. The map must clearly label:

   i. All CSS outfall locations within the municipality (both exposed and submerged);
   ii. All sewage plant discharge points within the municipality;
   iii. All collection system outfalls within the municipality;
   iv. All potential outfalls from sewage pumping stations;

v. Any other types of sewage outfall other than those mentioned above;
vi. All waterbodies that receive wastewater from identified sewage outfalls;
vii. All public recreational beaches within the municipality;
viii. Any further information deemed necessary, as determined by public consultation.

Provision 3: Real-time public alerts

3. Real-time sewage release event reporting required

All sewage release events must be reported by the owner/operator of sewage infrastructure in real time so that members of the public may make informed decisions about whether to swim, drink, or fish in local waterways. Public alerts must be made at the commencement and end of all release events.

a. Reporting at the **start** of a sewage release event*

i. Reporting must be immediate;
Public notifications must be made immediately, or at least within four hours of the commencement of, awareness of, or reason to suspect the commencement of a release event;
ii. Public alerts must be electronic and posted online;
iii. The use of machine-readable formats (e.g. XML, JSON.) with webhooks for real-time alerts is strongly recommended;
iv. Once posted, real-time release event commencement reports must remain online permanently (e.g. in publicly accessible online archives);
v. Sewage system owner/operators must provide text message or email alerts for members of the public who have registered for real-time alerts;
Members of the public must be able to subscribe to receive real-time sewage release alerts. The subscription process must be simple and clearly communicated online. These emails or text messages must also be sent immediately, or within four hours of the commencement of, awareness of, or reason to suspect the commencement of a release event.
vi. Public alerts must also be made via local radio;
These radio alerts must be made within four hours of the commencement of, awareness of, or reason to suspect the commencement of a release event.
vii. Additional public alerts via television and/or social media are recommended;
viii. Contents of public real-time release event commencement alert must include:
    1. The location of overflowing sewage outfalls;
    2. The names of identified receiving waterbodies that may be affected;
    3. The names of identified public recreational beaches that may be affected;
    4. The date and time of initial release event occurrence;
    If the owner/operator of the sewage outfall does not know the exact time at which the release event began, the notice must include the time at which the event was first discovered or suspected. This notice must specify whether the commencement time is verified or an estimate;
    5. A warning of adverse human health impacts caused by contact with untreated or partially treated sewage;
    6. A warning for the public to avoid recreational uses of receiving waterbodies while the alert is in effect, and at least 48 hours after the release event ends;

7. The cause of the release event, if known (e.g. wet weather, severe storm, maintenance work, blockage, equipment failure, snow melt, etc.);
   If the cause is not yet known the alert must note that it will be disclosed either when the event cession alert is issued, or else when the next monthly sewage release report is issued. The webpage URL where members of the public can find the posted alerts must be provided; and,
8. Any further information deemed necessary, as determined by public consultation.

*See Appendix II for a real-time alert template to be issued at the commencement of a sewage spill.

b. Reporting at the **end** of a sewage release event*

   i. Reporting must be immediate;
      Public notifications must be made immediately, or at least within four hours of the end of, or expected end of, the release event.
   ii. Public alerts must be electronic and posted online;
   iii. The use of machine-readable formats (e.g. XML, JSON.) with webhooks for real-time alerts is strongly recommended;
   iv. Once posted, real-time release event cessation reports must remain online permanently (e.g. in publicly accessible online archives);
   v. Sewage system owner/operators must also provide text message or email alerts for members of the public who have registered for real-time alerts;
      These emails or text messages must also be sent immediately, or within four hours of the end of, or expected end of, the release event.
   vi. Public alerts must also be released via local radio;
      These radio alerts must be made within four hours of the end of, or expected end of, the release event.
   vii. Additional public alerts via television, and/or social media are recommended;
   viii. Contents of public real-time release event end alert must include:
      1. The location of overflowing sewage outfalls;
      2. The names of identified receiving waterbodies that may be affected;
      3. The names of identified public recreational beaches that may be affected;
      4. The date and time of initial release event occurrence and the date and time of the end of the event;
         If the exact time at which the release event ended is not known the notice must include the time at which the event was expected of have ended. This notice must specify whether the end time was verified or an estimate;
      5. The total duration of the event;
      6. A warning of adverse human health impacts caused by contact with untreated or partially treated sewage;
      7. A warning for the public to avoid recreational uses of receiving waterbodies at least 48 hours after the release event ends;
      8. The cause of the release event, if known (e.g. wet weather, severe storm, maintenance work, blockage, equipment failure, snow melt, etc.);
         If the cause is not yet known, the alert must note that it will be disclosed when the next monthly sewage release report is issued. The webpage URL where members of the public can find the posted alert must be provided.

9. Measured volume or estimated volume of the sewage discharge, if known; The alert must specify if this is an actual measurement or an estimate. If measurements or estimates are not yet known, the alert must note that it will be disclosed when the next monthly sewage release report is issued. The webpage URL where members of the public can find the posted alert must be provided. and
10. Any further information deemed necessary, as determined by public consultation.

*See Appendix III for a real-time alert template to be issued at the **end** of a sewage spill event.

Provision 4: Monthly reports

4. Monthly sewage release event follow-up reporting required*

More detailed reports must be made publicly available on a monthly basis to allow members of the public to assess the severity of previously reported sewage spill events. These monthly follow-up reports would also help members of the public to identify short-term trends in release events and allow individuals to make more informed decisions about using local waterbodies for recreation.

a. Sewage release event follow-up reports must be prepared and publicly disclosed monthly;

b. Monthly reports must be electronic and posted online;

c. Once posted, monthly reports must remain online permanently (e.g. in publicly accessible online archives);

d. The use of machine-readable formats (e.g. XML, JSON.) for monthly reports is strongly recommended;

e. Mandatory contents of monthly public sewage release follow-up reports:

   i. The type of release event must be specified (e.g. sewage bypass, CSO, collection system overflow, pumping station overflow, etc.)
   ii. The location of all sewage outfalls that overflowed during the reported month;
   iii. The names of identified receiving waterbodies potentially affected by each reported sewage release event;
   iv. The locations/descriptions of public recreational beaches potentially affected by each reported sewage release event;
   v. The date and time of initial occurrence and end of each reported sewage release event; The report must specify whether the commencement and end times were verified or estimates;
   vi. The duration of each reported sewage release event;
   vii. The measured or estimated volume of discharge, expressed in m^3, for each reported sewage release event;
   The report must specify whether the volume of each reported release event was measured or an estimate;

viii. The level of treatment received for each reported sewage release event (e.g. no treatment, primary treatment, or secondary treatment);
ix. The cause of each reported sewage release event (e.g. precipitation event, snow melt, maintenance work, blockage or equipment failure, etc.);
x. The results of any water quality sampling conducted of sewage release effluent or receiving waters after the occurrence of each reported sewage release event;
xi. The results of any measured flow rates in sewer infrastructure during sewage release events; and
xii. Any further information deemed necessary, as determined by public consultation.

*See Appendix IV for a monthly sewage release report template.

Provision 5: Annual reports

5. Annual sewage release trend reporting required

Annual sewage release trend reports must be available to the public documenting trends in the response of sewage infrastructure to external weather events. In Ontario, this report must also include CSS evaluations required by Ministry of Environment, Conservation and Parks' Procedure F-5-5, as well as updates by owner/operators of CSSs concerning measures taken to ensure the good operation of CSSs and minimization of CSO events.

a. Sewage release trend reports must be prepared and publicly disclosed annually;

b. Annual reports must be electronic and posted online;

c. Once posted, annual reports must remain online permanently (e.g. in publicly accessible online archives);

d. The use of machine-readable formats (e.g. XML, JSON.) for annual reports is strongly recommended;

e. Mandatory contents of annual sewage release trend reports:

i. The total monthly volume (or estimated volume) of the year's CSO events;
The report must specify whether these volumes were measured or estimated;
ii. The total number of days each month in which CSO events occurred over the year;
iii. The total volume (or estimated volume) of each type of sewage release other than CSO events;
The report must specify whether these volumes were measured or estimated;
iv. Measurements or modelling of trends in wastewater flow in sewer infrastructure (especially CSSs) over the year compared with precipitation trends and how they impacted peak wet and dry weather sewage flow rates;
v. In Ontario: Confirmation of the public availability of municipal Pollution Prevention and Control Plans required by Ministry of Environment, Conservation and Parks' Procedure F-5-5 and a description of any changes made to these plans over the reported year;
vi. A summary of any developments in the implementation of the municipal Pollution Prevention and Control Plans;

vii. The inclusion of, or inclusion of a summary of, monthly sewage release reports; and
viii. Any further information deemed necessary, as determined by public consultation.

Provision 6: Municipal Pollution Prevention and Control Plans

6. Where such plans are required (e.g., Ontario) all municipalities must make their Pollution Prevention and Control Plans publicly available online.

Provision 7: Public consultation

7. Local community feedback mechanisms required

Members of the public must be able to periodically provide feedback, and have their feedback considered by sewage system owners/operators, concerning the contents of local public alert protocols and the need for any improvements.

Provision 8: Glossary of terms

8. Definitions

a. **Combined Sewer System (CSS):** The physical infrastructure that collects and carries both raw sewage and stormwater for treatment at sewage treatment plants. When wastewater flow rates are high, CSSs are designed to divert wastewater directly into receiving waterbodies without receiving treatment, or only receiving partial treatment. Some CSS outfalls are exposed on the shorelines of receiving watercourses, while others are submerged underwater along lakebeds or riverbeds.

b. **Sanitary Sewer System (SSS):** The physical infrastructure that collects and carries raw sewage for treatment at sewage treatment plants. When flow rates are high, raw or partially treated sewage can be discharged into local waterways from SSSs via sewage treatment plant bypasses, sewage pump or collection overflows, or other types of diversions upstream from treatment plants. Sewage treatment plant bypasses are the most regulated form of sewage release.

c. **Combined Sewer Overflow (CSO):** When raw sewage and stormwater are diverted away from receiving full treatment at sewage treatment plants, and discharged into receiving waterbodies. CSOs tend to be more common during precipitation events or snow melts as these occurrences increase flow rates of wastewater in CSSs. This type of sewage release is regulated less than sewage treatment plant bypasses.

d. **Sewage treatment plant bypass:** When raw or partially treated sewage is released from water treatment plants, or redirected away from water treatment plants and discharged into local waterbodies. Generally, bypasses occur when the volume of wastewater exceeds the capacity of the plant at that time.

e. **Sewage pump station overflows:** When sewage pump stations release sewage into local waterways rather than directing the wastewater to sewage treatment plants.

f. **Collection system overflow:** When sewage collection systems release sewage into local waterways rather than directing the wastewater to sewage treatment plants.

g. **Other types of upstream sewage release event:** Depending on the municipality, discharges may occur from sanitary sewers upstream from treatment plants without being considered treatment plant bypasses, CSOs, or collection system or pumping station overflows. To address these types of discharges (that can otherwise fall through regulatory cracks), the alert includes reference to, and applied to, these other types of sewage releases or sewage release events.

h. **Sewage release event:** The occurrences of distinct sewage release events can be difficult to determine, especially when their duration can depend on ongoing external conditions such as storms or snow melts. For the purpose of this model policy, sewage release events will be considered distinct, and have to be reported separately, if there are at least 4 dry hours without any discharge between overflows.

i. **Raw or untreated sewage:** Sewage that has not received any physical screening or other treatment.

j. **Primary treatment:** A level of wastewater treatment that involves mechanical processes (namely physical screening and/or the use of sediment tanks) to remove suspended solid waste and reduce the biochemical oxygen demand (BOD) in wastewater. Primary treatment may also include the chlorination of wastewater.

k. **Secondary treatment:** A level of treatment that occurs after wastewater receives primary treatment. It involves biological processes (namely the use of specialized microorganisms) to further remove organic matter and biochemical oxygen demand (BOD) missed by primary treatment.

l. **Sewage system owner/operators:** Owners and operators of sewage systems tend to be local municipalities and/or municipal water treatment agencies.

APPENDIX 1: Physical sewage outfall signage template

For exposed outfalls:

CAUTION:

This pipe contains [“**raw or partially treated sewage**” OR “**a mixture of stormwater and raw or partially treated sewage**”, depending on the contents of the pipe]**. Avoid contact with any wastewater being discharged from this pipe.**
Members of the public are advised to avoid recreational uses of the water around this discharge point for at least 48 hours after any discharge ceases.

Individuals who have come into contact with this wastewater and experience mild gastrointestinal discomfort, rash, or other symptoms should inform [insert local public health authority] by calling [insert phone number of local public health authority]. If symptoms are serious, individuals should immediately consult a medical professional.

All wastewater discharges from these sewer pipes are publicly reported online at [insert webpage URL where reports are posted] and over local radio on [insert radio station]. If you would like to receive immediate notification of discharges/overflows within the municipality via email or text message, please subscribe online at [insert link to webpage where public can subscribe].

Owner/operator of this pipe: [insert name of owner/operator]
Contact information for over/operator: [insert phone number of owner/operator]

For submerged outfalls:

CAUTION:

X meters from this shoreline is the submerged outfall of a pipe carrying ["**raw or partially treated sewage**" OR "**a mixture of stormwater and raw or partially treated sewage**", depending on the contents of the pipe]**. In certain circumstances (e.g. wet weather and snow melts), this wastewater is discharged directly into the lake/river.**

Members of the public are advised to avoid recreational uses of the water around this discharge point for at least 48 hours after any discharge ceases.

Individuals who have come into contact with this wastewater and experience mild gastrointestinal discomfort, rash, or other symptoms should inform [insert local public health authority] by calling [insert phone number of local public health authority]. If symptoms are serious, individuals should immediately consult a medical professional.

In order to know whether this submerged outfall is discharging wastewater, please visit [insert webpage URL where reports are posted] where all wastewater discharges from these sewer pipes are publicly reported. Discharges are also reported on local radio at [insert radio station]. If you would like to receive immediate notification of discharges/overflows within the municipality via email or text message, please subscribe online at [insert link to webpage where public can subscribe].

Owner/operator of this pipe: [insert name of owner/operator]
Contact information for over/operator: [insert phone number of owner/operator]

APPENDIX II: Real-time sewage spill event commencement public alert template

At [insert time] today, the [insert name of municipality] discovered or has reason to believe that a sewage spill event began. Recreational water users should avoid the [insert receiving waters] until further notice. Potentially affected public recreational beaches and areas include: [insert beaches].

Members of the public are advised to avoid recreational uses of affected waterbodies for 48 hours after the end of the sewage release event.

[Insert name of municipality] has issued this sewage spill alert to make recreational water users in the municipality aware of risks of water pollution near [insert receiving waterbodies]. The alert is in effect until further notice.

[If the cause is known:] This release event was caused by [insert cause, e.g. wet weather, severe storm, maintenance work, blockage, equipment failure, snow melt, etc.]. [If the cause is not yet known:] The cause of this release event is not yet known. Once known, it will be reported in this release event's cessation report, or else the next monthly sewage release trend report and posted online at [insert webpage URL].

While this alert is in effect:

- Members of the public are advised to avoid contact with [insert receiving waterbodies].
- Individuals who have come into contact with contaminated water and experience mild gastrointestinal discomfort, rash, or other symptoms should inform [insert local public health authority] by calling [insert phone number of local public health authority]. If symptoms are serious, individuals should immediately consult a medical professional.

An alert is issued when sewage spills are occurring, or are likely to occur, at one or more of the municipality's sewage outfall locations. For a map of all outfall locations in the municipality, see this online map: [insert link to online sewage outfall map for the municipality]. Sewage discharges may contain bacteria, chemicals, and other contaminants that pose a risk to human health. An alert remains in effect for 48 hours after the after the end of the sewage release event.

For more information, please visit [URL of website where sewage spill information can be found].

[insert media contact]

APPENDIX III: Real-time public sewage release event cessation alert template

The reported sewage release event from [insert time and date of the commencement or suspected commencement of the release event] has now ended.

At [insert time] on [insert date], the [insert name of municipality] discovered or had reason to believe that a sewage spill began. Recreational water users were advised to avoid the [insert receiving waters] until further notice. Potentially affected public recreational beaches and areas include: [insert beaches].

The total duration of this release event was [insert hours and minutes].

[If cause is known:] This release event was caused by [insert cause, e.g. wet weather, severe storm, maintenance work, blockage, equipment failure, snow melt, etc.]. [If cause is not yet known:] The cause of this release event is not yet known. It will be reported in the next monthly sewage release trend report. This report will be posted online at [insert webpage URL].

[If total discharge volume is known:] X [insert amount] m^3 of wastewater was discharged into receiving waters as a result of this release event. [If total discharge volume is not yet known:] The total volume of wastewater discharged during this release event is not yet known. Once known, it will be reported in the next monthly sewage release trend report and posted online at [insert webpage URL].

While the sewage release event has now ended, members of the public are still advised to avoid recreational uses of affected waterbodies for an additional 48 hours to allow for dissolution and dispersion of the wastewater.

For the next 48 hours:

- Members of the public are still advised to avoid contact with [insert receiving waterbodies].
- Individuals who have come into contact with contaminated water and experience mild gastrointestinal discomfort, rash, or other symptoms should inform [insert local public health authority] by calling [insert phone number of local public health authority]. If symptoms are serious, individuals should immediately consult a medical professional.

An alert is issued when sewage spills are occurring, or are likely to occur, at one or more of the municipality's sewage outfall locations. For a map of all outfall locations in the municipality, see this online map: [insert link to online sewage outfall map for the municipality]. Sewage discharges may contain bacteria, chemicals, and other contaminants that pose a risk to human health. An alert remains in effect for 48 hours after the after the end of the sewage release event.

For more information, please visit [URL of website where sewage spill information can be found].

[insert media contact]

APPENDIX IV: Monthly sewage release report template

Type of spill[2]	Date of spill	Spill start and end times	Total duration (in hrs). Indicate if this value is an estimate.	Spill location	Name of receiving waters	Affected public recreation areas including beaches	Total volume released (m^3). Indicate if this value is an estimate.	Cause[3] of the event	Level of treatment[4] received	Results of contaminant testing,[5] if sampled	Results of any flow rate monitoring, if measured

[2] For example: CSO, collection system overflow, pumping station spill, sanitary sewer overflow.
[3] For example: maintenance work, blockage, wet weather event, severe storm, snow melt, etc.
[4] For example: raw/untreated, primary treated, secondary treated.
[5] Results must be provided for all contaminants that are being monitored and sampled. This may include: *e.coli*, carbonaceous biochemical oxygen, suspended solids, unionized ammonia, ammonia, and pH values.