

APPENDIX B - ENVIRONMENTAL DISCHARGE & RELEASE

April 21, 2023

All information in this report complies with *The Local Authority Freedom of Information and Protection of Privacy Act*.

1.0 Introduction

To increase transparency and education regarding environmental protection, the City of Regina (City) has developed this Environmental Discharge & Release Report. One way the City protects the environment is employing a team of professionals that oversee, direct, and educate City employees and, at times, residents and businesses on the proper cleanup and reporting of spills. They also help implement measures to mitigate and prevent spills within the organization.

This proactive approach to share environmental spill/release information publicly is also intended to build trust within the community. The information included in this report is based on regulatory requirements and/or industry best practice standards and includes a summary of Regulatory and Non-regulatory Releases to the environment that happened over the previous year. By providing this information to the public, the City intends to demonstrate continued improvement. Protecting the environment, community, and employees is paramount to the City's vision.

To help readers better understand the City's approach to the cleanup of spills and releases, definitions and a severity index are included below:

Regulatory Release is a spill or discharge that meets federal or provincial regulatory limits and must be reported as per the Saskatchewan Ministry of Environment (MOE) Discharge and Discovery Reporting Standard.

Non-Regulatory Release is a spill or discharge that does not meet the MOE Discharge and Discovery Reporting Standard and has the potential to cause minor harm to the environment but is not serious enough to be reportable to regulatory agencies.

Sewer Release is a spill or discharge into either the wastewater or stormwater system that could cause an adverse impact to the sewer system but does not have a negative impact on the environment and is not reportable as per the Discharge and Discovery Reporting Standard. For more information on Sewer Releases, please see the Semi-Annual Sewer Source Control Report.

Table 1. Spill Severity Index

Severity Level	Description	Action
1	<ul style="list-style-type: none"> ▪ Potential for immediate hazard to human health 	<ul style="list-style-type: none"> ▪ Fire & Protective Services takes control of the site ▪ Primary objective: minimize risk to human health ▪ Secondary objective: manage impacts to the environment ▪ Ensure regulatory engagement ▪ Contact downstream users if applicable ▪ Advise City Council
2	<ul style="list-style-type: none"> ▪ Reportable Discharge enters the stormwater system AND reaches a natural (fish bearing) waterbody or an above ground storm channel (if fish as defined by the <i>Fisheries Act</i> are present). ▪ Domestic sewage bypass to a natural waterbody ▪ No immediate risk to human health <p>These factors increase the severity</p> <ul style="list-style-type: none"> ○ Short duration large volume discharge ○ Highly hazardous substance ○ Minimal stormwater piping before substance reaches the natural waterbody ○ No stormwater ponds or other intervening structures along the run ○ Enters an environmentally sensitive area 	<ul style="list-style-type: none"> ▪ Primary objective: manage impacts to the waterbody (may trigger specialized response) and stop the flow at the source ▪ Secondary objective: identify the source ▪ Ensure regulatory engagement ▪ Spill to Wascana that may affect downstream and contact downstream users ▪ Advise City Council
3	<ul style="list-style-type: none"> ▪ Reportable Discharge enters: <ul style="list-style-type: none"> ○ the stormwater system ○ a natural (fish bearing) waterbody ○ an above ground storm channel if fish (as defined by the <i>Fisheries Act</i>) are present. ▪ Discharge aboveground, adjacent to the natural waterbody ▪ No hazard to human health <p>These factors decrease the severity</p> <ul style="list-style-type: none"> ○ Medium volume discharge ○ Low to medium hazard substance 	<ul style="list-style-type: none"> ▪ Primary objective is confining the substance ▪ Secondary objective is to manage impacts (may trigger specialized response) ▪ Tertiary objective: identify the source ▪ Ensure regulatory engagement
4	<ul style="list-style-type: none"> ▪ Reportable Discharge to a permeable surface, but area is low risk (low environmental sensitivity) and easily contained; OR ▪ Short-term release enters the stormwater system, but one or more factors keep the severity to a Level 4. <ul style="list-style-type: none"> ○ Small volume released that would be retained by storm drain or lead ○ Known, non-hazardous substance (most substances are hazardous) ○ Long run of underground stormwater piping before substance reaches the waterbody ○ One or more stormwater ponds along the run, with sufficient capacity ▪ No hazard to human health 	<ul style="list-style-type: none"> ▪ Primary objective is confining the substance and ensuring it does not enter a more sensitive area ▪ Secondary objective is to manage impacts to the stormwater system ▪ Tertiary objective: identify the source ▪ Ensure regulatory engagement
5	<ul style="list-style-type: none"> ▪ Minor short-term discharge to a paved surface below reportable limit ▪ No entry to stormwater system, or directly to a fish-bearing waterbody ▪ No hazard to human health 	<ul style="list-style-type: none"> ▪ Work area can be cleaned up without assistance

2.0 Environmental Regulations

The Government of Saskatchewan and the Government of Canada have authority over environmental legislation and regulation in Regina including the reporting and clean-up of spills. Both levels of government have a robust regulatory framework and reporting structure that uses a risk-based framework to set limits for compounds in the environment to protect animal, plant, and human life. Until compounds enter the environment at a level above regulatory criteria, such compounds are not considered spills or releases by the regulators. Rigorous science-based regulations are in place federally and across all provinces that define what constitutes acceptable public risk based on best practice scientific principles.

When a Regulatory Release occurs, a “single window approach” is used so that individuals or businesses report the spill one time, but the information is made available to all applicable regulatory bodies. This approach improves transparency of reporting and simplifies the process so that reporting requirements are easier to understand and follow. Individuals can also focus on cleaning up the spill and mitigating impacts to the environment.

After a spill is reported to the regulatory agencies, these regulatory agencies become involved to ensure that the actions of the offending party meet all regulatory requirements and risk to both humans and the environment is minimized. In the event the spill takes place on public property and the offending party cannot be identified, the City is responsible for the cleanup.

When the City identifies a Regulatory Release, no matter the responsible party, the City calls the Spill Control Centre (1-800-667-7525) as soon as reasonably practicable to advise the regulatory bodies of the situation and submits a Written Spill Report within 30 days to the MOE. If the release is on private property, it is the owner’s responsibility to determine if the incident needs to be reported to regulators. Unless there is potential for harm to human health or public property, the City and its residents are not informed of releases or spills on private property.

The City responds to various reportable and non-reportable releases within Regina to mitigate impacts to the environment and City-owned property. When a release occurs on or enters public property the City:

- Determines severity.
- Notifies the Spill Control Centre if warranted.

- Notifies downstream users if warranted.
- Tries to identify the responsible party if they have not already come forward.
- Oversees or conducts the clean-up of the spill depending on if the offending party has been identified and/or if it was caused by the City.
- Ensure public safety and protection of the environment is maintained.
- Charges back costs associated with the event to the offending party (if applicable).

3.0 Notification

Notification to downstream users will occur when either a regulatory body directs the City to notify downstream users, or the City has assessed the situation and deemed the spill may affect downstream users. In the event the City and its regulators have determined an emergency notification is not required, then the City only posts the information on the spill in this report following its annual update. This process considers the risk to the public and the environment and notifies potentially affected parties when required without desensitizing the public with numerous notifications. It is important that the effects of any spill are understood, and the tangible risks are appropriately communicated, to avoid generating unnecessary fear or confusion for the public.

4.0 Summary Tables

One of the ways the City becomes aware of a spill is through residents notifying the City of a spill. In 2022, the City received 62 Service Requests that were related to hazardous materials or spills. Of those Service Requests, 40 were for active spills and zero Service Requests involved reportable releases.

Table 1 summarizes non-reportable releases to the storm system in 2022 and Table 2 shows a summary of spill incidents reported to regulators. Although most of the incidents were Level 5 spills such as oil pans leaking onto roadways, without community engagement and reporting, many reportable releases would go unreported for longer and could result in a higher severity spill as a result.

Table 1. Summary Table of Non-Reportable Releases to the Storm System in 2022.

Date	Description	Severity Index	Action Taken
9-Jun-22	The City received information that a resident was dumping commercial carwash detergent containers in an alley during a rainstorm.	Level 4	The City spoke with the responsible party, and they admitted to purposefully dumping the contents of the drum during the recent rain event. The City cleaned up the dumped detergent, hydrovac'ed standing water/detergent and cleaned out the storm drain. The City incurred \$3,921.95, which was recovered from the offending party.
22-Jul-22	Resident called stating there was a vehicle leaking oil and reaching the storm drain.	Level 5	Staining was observed on the street, oil could not be confirmed in the storm drain, absorbent was applied into the storm drain as a precaution.
22-Jul-22	Resident called in saying a neighbor was washing dirt and oil from their driveway into the storm drain.	Level 5	There was no evidence of oil sheen in any standing water observed. Absorbent was applied to the storm drain as a precaution.
21-Jul-22	Oil sheen was reported on Wascana Creek.	Level 4	Site investigation observed no visible sheen at the location. Samples were collected. Analytical results showed no signs of hydrocarbon. Sheens can also be indicative of the natural oils in waterways from decomposing plants or animals or other natural processes.
27-Jul-22	Resident reported a camper that was dumping grey water in the storm drain.	Level 5	There was no camper at the location at the time of the inspection. Domestic wastewater was not observed in the storm drain.
28-Jul-22	Residents reported a company was dumping sewage into the storm drain.	Level 4	The site was investigated over a few days. There was no evidence to suggest that sewage was being disposed of and no company was identified.
1-Aug-22	Resident called in saying a neighbor was pouring gas down the storm drain.	Level 5	Site inspection did not show any evidence of gasoline or other hydrocarbon products. Absorbent was applied to the storm drain as a precaution.

28-Sep-22	Resident called in saying a neighbor was washing dirt and oil from their driveway into the storm drain.	Level 5	Site inspection showed there was no evidence of water or oil in the gutter or storm drain in the immediate area.
30-Nov-22	Resident called in stating a camper was dumping sewage in the storm drain.	Level 5	There was no camper at the location at the time of the inspection. Domestic wastewater was not observed in the storm drain.

Absorbent: The City employs the use of specialized absorbent that encapsulates contaminants and does not allow them to leach into the environment. This allows the City to use the absorbent in stormwater drains, on plants or trees, or on water to collect and effectively remove the contaminates from the environment where cleanup and recovery is difficult.

Costs associated with motor vehicle accidents and their spills were not accounted for in this report unless the spill entered a waterbody or the storm sewer system.

Table 2. Summary of Reportable Releases for 2022.

Date	Location	Description of Events	
28-Jan-22	11th Avenue and Broad Street	Potable water line break of a large volume. The spill was reported to the Spill Control Centre.	The City isolated water line and found and repaired.
19-Feb-22	1254 McIntosh Street	Potable water line break of a large volume. It is the City's policy that significant breaks or breaks that are within one kilometer of the receiving body be reported to the Spill Control Centre.	The break was found and repaired along with collection system along with the risk to the environment.
23-Feb-22	445 Halifax Street	Potable water line break of a large volume. It is the City's policy that significant breaks or breaks that are within one kilometer of the receiving body be reported to the Spill Control Centre.	The City included testing of water quality and Dechlorination tablets were used and at the outlet into the receiving body was found and repaired.
25-Mar-22	7th Avenue N Broad Street	Potable water line break of a large volume caused by a third party. It is the City's policy that significant breaks or breaks that are within one kilometer of the receiving body be reported to the Spill Control Centre.	The City conducted testing of water quality and Dechlorination tablets were used and at the outlet into the receiving body was found and repaired. City were recouped.
10-May-22	A.E Wilson Park	The City received a Service Request regarding dead fish. The incident was report to the Spill Control Centre.	The City received a Service Request regarding dead fish out to the north section of Wascana Creek approximately 10 dead fish were reported to the Spill Control Centre. The City tested water quality and sewage parameters to determine if domestic sewage cross connection or water or domestic sewage was the cause.
19-Jul-22	Garnet St & Wascana Creek	A significant rain event caused a wastewater bypass to occur at Garnet Street which led to a mix of wastewater and stormwater entering Wascana Creek upstream of the Elphinstone bridge. The incident was reported to the Spill Control Centre.	On July 19, 2022, approximately 100,000 litres of wastewater that occurred in a short time period. The City discharged domestic wastewater into Wascana Creek. The total volume of the incident to the Spill Control Centre upon receipt of the bypass was reported within one hour of the end of the event. A follow-up investigation travel time in Wascana Creek was completed on July 27, respectively. After the event, elevated levels were observed.

21-Jul-22	WWTP (Wastewater Treatment Plant)/Wascana Creek	The City was notified by EPCOR that a hydrocarbon smell was noticed in the WWTP. The hydrocarbons were found to be entering the WWTP through the City's wastewater collection system. Following treatment, small amounts were found in the water that leaves the WWTP.	The hydrocarbon contained in the water over the next few days, the smell was of an intermittent nature of the hydrocarbons so it had to be processed. An investigation was conducted. Administrative controls for Toluene, ethylbenzene, and xylene in Wascana Creek near the WWTP (sampling was not conducted) were above the reportable level and were stopped on July 27 as two events occurred. The event was reported as levels were above reportable. An investigation was completed and the party responsible.
11-Oct-22	Hill Avenue & Argyle Street	Potable water line break of a large volume. It is the City's policy that significant breaks or breaks that are within one kilometer of the receiving body be reported to the Spill Control Centre.	The City conducted testing and found Dechlorination tablets were present and at the outlet into the receiving body was found and repaired.
22-Oct-22	Francis Street & 20th Avenue	Potable water line break of a large volume. It is the City's policy that significant breaks or breaks that are within one kilometer of the receiving body be reported to the Spill Control Centre.	The City conducted testing and found Dechlorination tablets were present and at the outlet into the receiving body was found and repaired.

5.0 Conclusion

The City is committed to open and honest dialog and transparency with its residents and stakeholders regarding hazardous material spills within Regina. The City will continue to work both externally and internally to improve City processes and ensure that when both reportable and non-reportable releases occur, risk to the public and environment is mitigated, and the offending party pays for the cleanup when appropriate. This process, in addition to the current environmental programs within the City, will make the environment a priority and help prevent and mitigate future releases.

Appendix A

