

SECTION 14 INCIDENT REPORT (*Waste Management and Pollution Control Act*)

Date and Time of Notification:	Friday 07/01/2022 16:15hrs
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network

<p>(a) the incident causing or threatening to cause pollution</p>	<p><i>i. Description of the waste that was discharged.</i></p> <p>Raw sewage</p> <p><i>ii. Indicative wastewater quality for the discharge.</i></p> <p>Inflow data to Ludmilla WWTP for 07/01/2022 was an average of 1.07ML/hr up to 10am, which equates to an average of 25.7ML/day. Overnight rainfall from midnight to 9am was 61.6mm (Darwin Airport – 014015); therefore based on inflow data, the spill was partially diluted.</p> <p>Table 1: Inflows to Ludmilla WWTP</p> <table border="1"> <thead> <tr> <th></th> <th>Median Inflow (ML)</th> <th>Median E. coli</th> <th>Median Enterococci</th> <th>Dilution Terminology</th> </tr> </thead> <tbody> <tr> <td>below ADWF</td> <td>11.401</td> <td>14,136,000</td> <td>713,550</td> <td>Undiluted</td> </tr> <tr> <td>>ADWF</td> <td>13.253</td> <td>11,616,000</td> <td>727,000</td> <td>Partially Diluted</td> </tr> <tr> <td>>2xADWF</td> <td>29.629</td> <td>8,164,000</td> <td>323,000</td> <td>Diluted</td> </tr> <tr> <td>>3xADWF</td> <td>44.043</td> <td>6,488,000</td> <td>261,300</td> <td rowspan="3">Highly diluted</td> </tr> <tr> <td>>4xADWF</td> <td>51.048</td> <td>5,634,500</td> <td>238,100</td> </tr> <tr> <td>>5xADWF</td> <td>99.841</td> <td>2,359,000</td> <td>218,700</td> </tr> </tbody> </table> <p>NOTE: Based on 01/01/2018 to 31/12/2020 inflows to Ludmilla WWTP and monitoring events data. Average dry weather inflow being 11.9012 ML/day.</p> <p><i>iii. Volume of the waste that was discharged.</i></p> <p>The final volume of waste discharged is unknown, as the spill is ongoing during peak demand periods, at the time of reporting.</p>		Median Inflow (ML)	Median E. coli	Median Enterococci	Dilution Terminology	below ADWF	11.401	14,136,000	713,550	Undiluted	>ADWF	13.253	11,616,000	727,000	Partially Diluted	>2xADWF	29.629	8,164,000	323,000	Diluted	>3xADWF	44.043	6,488,000	261,300	Highly diluted	>4xADWF	51.048	5,634,500	238,100	>5xADWF	99.841	2,359,000	218,700
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<p>(b) the place where the incident occurred</p>	<p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Rapid Creek sewage pumping station, emergency overflow pipe, Rapid Creek and initially from a damaged 300mm sewer AC main Y-piece at the corner of Lakeside Drive and Trower Road, Alawa</p> <p><i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.</i></p> <p>Discharge Point 1: 130.8686998 E, -12.3839499 S (broken Y-piece sewer main)</p>																																	

	<p>Final discharge points: 130.8655991 E, -12.3805658 S (SPS emergency overflow pipe) & 130.8670494 E, -12.3786654 S (Rapid Creek)</p> <p><i>iii. Indicate any locations nearby to the discharge point where public can gain ready-access, such as public open spaces through which the discharge moves.</i></p> <p>Access by the public is not possible at the pipe repair site located at the corner of Lakeside Drive and Trower Road, as temporary fencing has been erected around the site and signage is on display. Signage is being erected at key locations at Rapid Creek, to warn the public of the spill, but access is still possible.</p>
(c) the date and time of the incident	<p><i>i. The time and date of commencement and cessation of the discharge.</i></p> <p>The commencement time of the spill from the damaged Y-piece at Lakeside Drive is unknown but was first observed at 12:12hrs 06/01/2022 and was stopped by 16:00hrs 06/01/2022. The commencement time of the overflow from the Rapid Creek sewage pump station (SPS) was approximately 07:30hrs 07/01/2022 and ceased by 10:36hrs 07/01/2022. It is anticipated to start overflowing again, as water demand rises in the evening and morning, until such time that repairs to the Y-piece have been completed, and flows can be redirected back to the Lakeside Drive SPS.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>A PWC operator on his way to the Lakeside drive SPS, doing his scheduled maintenance run, observed the spill along the way.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>A combination of corrosion and normal deterioration from the aged infrastructure caused a weak point in the pipework, which eventually gave way. The subsequent overflow from Rapid Creek SPS was due to the initial spill from the damaged pipe at Lakeside Drive, as flow needed to be diverted away from the site to initiate repairs. From the combined inflow into Rapid Creek SPS, the three pumps inside were not able to cope.</p> <p><i>iv. The reason why the discharge occurred.</i></p> <p>As per (c) iii.</p>
(d) how the pollution has occurred, is occurring or may occur	<p>As per (c) iii & (c) iv.</p> <p>As the repairs to the initial spill site could not be completed, until a new section of pipework has been fabricated, it is anticipated that the Rapid Creek SPS will overflow again on the evening of 07/01/2022 and morning of 08/01/2022, Repairs are planned to be completed by lunchtime 08/01/2022.</p>
(e) the attempts made to prevent, reduce, control, rectify or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident	<p><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>Temporary fencing has been erected around the site and signage is on display. Signage is being erected at key locations at Rapid Creek, to warn the public of the spill, but access is still possible.</p> <p><i>ii. Decontamination of the site as appropriate.</i></p> <p>Clean up consistent with Sewage Spills/Overflow Response Work</p>

	Instruction as appropriate to the location. Affected area has had lime applied and the affected grassed areas will be fenced off for a minimum period of 7 days to prevent public access.
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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Appendix A – Location map – Rapid Creek and Lakeside Drive SPS, emergency overflow pipe (2) and site of overflow cause (1)

