

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

Date and Time of Notification:	Sunday 15 th January 2023, 14:35hrs
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of sewage from sewerage network (gas trap manhole cover)

<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 shows that the average inflow for the previous 48hour period was 25ML/day, which is twice the average dry weather inflows, with similar results expected at Palmerston ponds, due to continued inflow and groundwater infiltration from previous rains. Although no rainfall for the previous 48hrs up to 21:00hrs 14/01/2022 was recorded (Darwin Airport – 014015); the spill could still be said to be partially diluted, from this groundwater infiltration, meaning that the spill was partially diluted. Please refer to the following table for indicative wastewater quality.</p> <p style="text-align: center;">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 volume of waste discharged is unknown. No telemetric monitoring occurs at the site of discharge.</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>Gas trap manhole cover (80/A), at 40 Essington Avenue, Gray (Lot 5983).</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><i>Approximate locations are as follows;</i> Discharge Point: 130.9801160E, -12.4872757S (manhole) Final Discharge Point: 130.9799931E, -12.4872204S (parkland immediately surrounding manhole cover)</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 to the discharge location was possible up until the Power and Water Sewer Reticulation Field Crew arrived on the scene to remediate the issue and thoroughly clean the area, as well as erect fencing. The spill was stopped at approximately 20:30hrs 14/01/2023.</p>
<p>(c) the date and time of the incident</p>	<p><i>i. The time and date of commencement and cessation of the discharge.</i></p> <p>The commencement time of the overflow is unknown, The overflow was observed by the Power and Water staff at approximately 19:15hrs 14/01/2023; and the spill was stopped by 20:30hrs 14/01/2023.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>This overflow was reported by one of the residents to the PWC call centre, who then relayed the information to the PWC sewer reticulation team that attended the site at 19:30hrs 14/01/2023, and undertook action to resolve the situation and make it safe.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>The cause of the spill was due to a partial blockage in the sewer line, which resulted from a build-up of what most likely was fats and non-degradable wipes. Fat and other non-disintegrating items like wet wipes and kitchen paper towels have been incorrectly disposed of into the sewer network by customers, resulting in the blockage and the overflow.</p> <p>When fats and oils are poured down the sink it is usually as a liquid, but as it cools it can become more solid and cause build-up, resulting in bad odours and blockages in the sewerage system. This can lead to the sewage overflows into the environment, households and businesses.</p> <p>Public education about what can be disposed in sewer/is flushable: https://www.powerwater.com.au/about/what-we-do/wastewater/sewer-blockages-and-overflows/think-before-you-put-it-down-the-sink In the aim of prevention, this material is available on the PWC website and is used as an educational tool for customers.</p> <p><i>iv. The reason why the discharge occurred.</i></p> <p>As per (c) iii. Sewerage network infrastructure has been designed to overflow with the best public health and environmental outcomes possible. Design focuses on not overflowing directly inside houses; rather discharge is designed to occur in a controlled manner at locations which can be accessed for infrastructure repair and clean up and with minimal public health or environmental impacts.</p>

(d) how the pollution has occurred, is occurring or may occur	As per (c) iii & (c) iv.
(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>Fencing and signage has been erected around the entire spill area as per the Power and Water Sewage Spills/Overflow Response Work Instruction, refer to photographs in appendix B.</p> <p><i>ii. Decontamination of the site as appropriate.</i></p> <p>Clean up consistent with the Power and Water Sewage Spills/Overflow Response Work Instruction as appropriate to the location, and to minimise risk to the environment. Blockage was cleared and upon resolution of the blockage, the site was left in a clean state, free from any gross pollutants, this was followed by the application of lime to the spill affected area and the entire area was fenced and warning signage was erected.</p>
(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



Appendix B – Photographs of the spill area, showing the applied lime, temporary bunting and erected signage.



Figure 1. Photograph of the spill site, taken 15/01/2023.



Figure 2. Photograph of the spill site, taken 15/01/2023.