

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

Date and Time of Notification:	Tuesday 4 th April 2023, 09:30 hrs
Person / Company:	Power and Water Corporation
Incident:	Discharge of raw sewage from sewerage network, (sewer manhole cover to roadside stormwater drain)

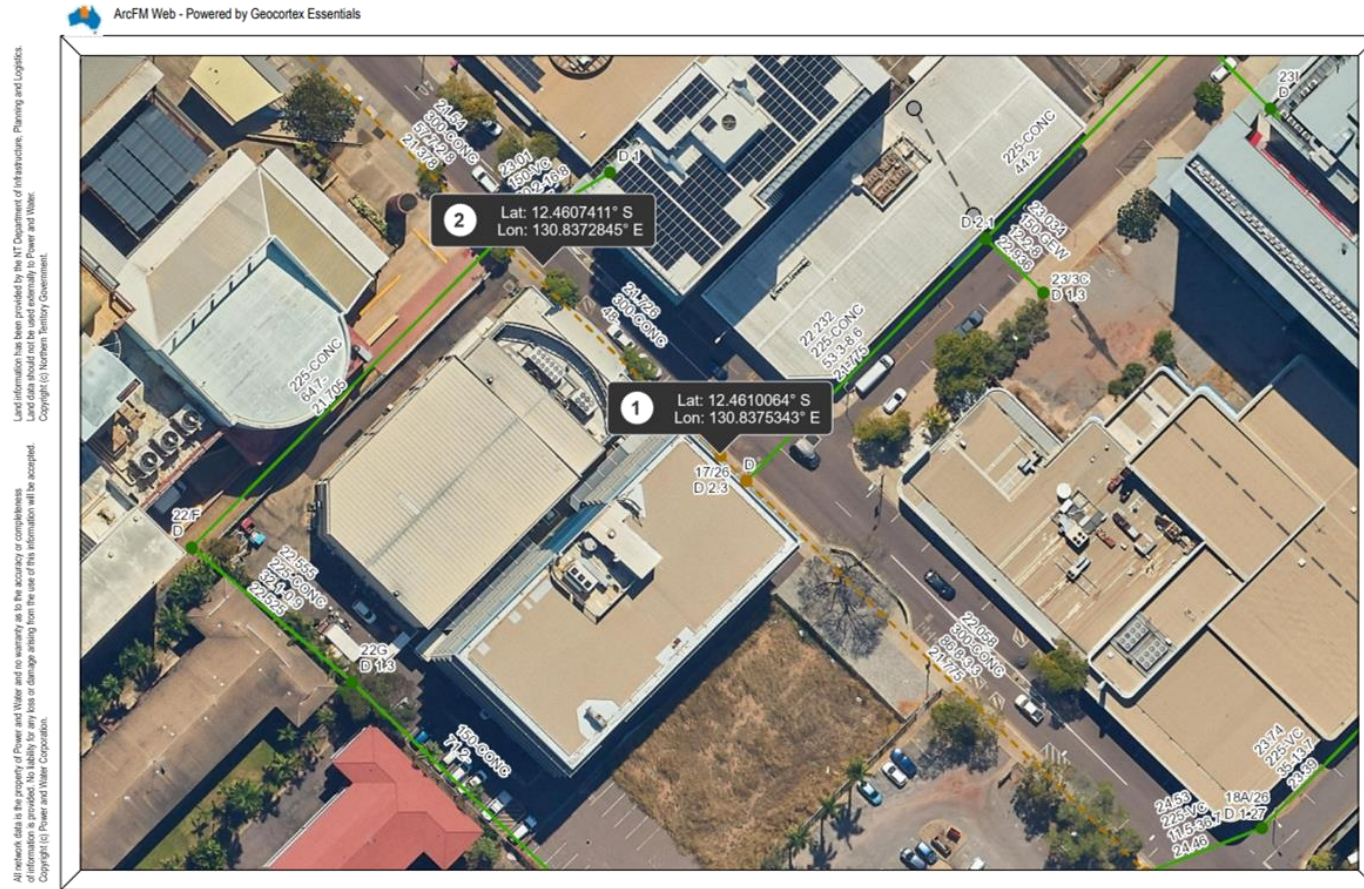
(a) the incident causing or threatening to cause pollution	<p><i>i. Description of the waste that was discharged.</i></p> <p>Raw sewage (no gross pollutants)</p> <p><i>ii. Indicative wastewater quality for the discharge.</i></p> <p>Inflow data to Ludmilla WWTP was 16.85ML/day, and rainfall leading up to the overflow was 24.2mm for the preceding 3 days (Darwin Airport – 014015), meaning that flows were above average dry weather flows, with partial dilution. Please refer to the following table for indicative wastewater quality.</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 volume of wastewater 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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(b) the place where the incident occurred	<p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Sewer manhole cover (17/26 D2.3), located at 87 Mitchell Street, Darwin, as per map below.</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: 130.8375343E, 12.4610064S (manhole cover)</p>																																	

	<p>Final Discharge Point: 130.8372845E, 12.4607411S (stormwater drain)</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 in this area is frequent. Upon Power and Water's field crew attending the overflow site, the site was continually supervised by Power and Water staff and members of the public were directed away from the spill to prevent contact. Upon resolution of the blockage, the area was cleaned comprehensively to ensure the area was safe for the public to access immediately.</p> <p>Due to the location temporary fencing was not appropriate. Therefore cleaning and disinfecting was undertaken immediately following resolution of the blockage and subsequent stopping of the spill, to allow immediate access by the public. The area was checked for gross pollutants of which none were present due to them being trapped by the manhole lid. Clean up was undertaken as per Power and Water's Sewage Spills/Overflow Response Work Instruction.</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 exact timing of the overflow is unknown, but was first observed at 10:00hrs 03/04/2023, The issue was resolved by approximately 10:40hrs 03/04/2023.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>This overflow was reported by a member of the public to the Power and Water call centre, who then relayed the information to the on-call field operations staff. Power and Water personnel attended the site at 10:00hrs 03/04/2023 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. Public education about what can be disposed of into the sewerage system or is flushable: https://www.powerwater.com.au/about/what-we-do/wastewater/sewer-blockages-and-overflows/think-before-you-put-it-down-the-sink</p> <p>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 or businesses; rather discharge is designed to occur in a controlled manner</p>

	at locations, which can be accessed for infrastructure repair and clean up and with minimal public health or environmental impacts.
(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>The blockage was cleared, and the overflow was stopped. Clean up undertaken as per Power and Water's Sewage Spills/Overflow Response Work Instruction. All visible sewage was vacuumed up and the area was immediately disinfected and thoroughly cleaned before the scene was opened up to the public again.</p> <p><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>No signage or fencing was erected in this instance; as the spill cause was rectified and the spill scene was cleaned comprehensively and disinfected straight away allowing public access immediately following clean up. Upon Power and Water crew attending the overflow site, the site was continually supervised by Power and Water staff who directed members of the public away from the spill to prevent contact.</p> <p><i>ii. Decontamination of the site as appropriate.</i></p> <p>Clean up consistent with Power and Water's Sewage Spills/Overflow Response Work Instruction as appropriate to the location. Site was inspected for any gross pollutants, of which none were observed, and the area was cleaned and disinfected with biodegradable detergent.</p>
(f) the identity of the person notifying the NT EPA	Power and Water's Environmental Services Team on behalf of Water Services

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Appendix A – Location Map (87 Mitchell Street, Darwin)



Appendix B – Location Photographs



Figure 1 – Discharge point – Pre-clean up



Figure 2 – Post clean up