

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

Date and Time of Notification:	Tuesday 21 th December 2021, 10:45hrs
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of sewage from sewerage network (ORG)

(a) the incident causing or threatening to cause pollution	<i>i. Description of the waste that was discharged.</i> Raw and highly diluted sewage <i>ii. Indicative wastewater quality for the discharge.</i> Inflow data to Ludmilla WWTP as at 16:00hrs 20/12/2021 was 2.83ML/hr, which equates on average to 67.9ML/day. Rainfall up to 16:00hrs on the 20/12/2021 was 75.8mm (Darwin Airport – 014015); flows for the day reached above 4 times average dry weather flows, meaning that the spill was highly diluted. Please refer to the following table for indicative wastewater quality. Table 1: Inflows to Ludmilla WWTP <table><tr><th></th><th>Median Inflow (ML)</th><th>Median E. coli</th><th>Median Enterococci</th><th>Dilution Terminology</th></tr><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></table> 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. <i>iii. Volume of the waste that was discharged.</i> The volume of waste discharged is unknown. No telemetric monitoring occurs at the site of discharge.		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	<i>i. Description of the PWC asset from which the discharge occurred.</i> Overflow relief gully (ORG), at 8 Gordon Street, Parap. <i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.</i>																																	

	<i>Approximate locations are as follows;</i> Discharge Point: 130.8456736E, -12.4316140S (ORG) Final Discharge Point: 130.8455548E, -12.4317234S (back yard) <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> As this spill was contained within the residential property bounds, there is no public access to the spill site.
(c) the date and time of the incident	<i>i. The time and date of commencement and cessation of the discharge.</i> The commencement time of the overflow is unknown, but is believed to be less than an hour before being attended to by PWC staff, based on the low volume that had overflowed. The overflow was observed at approximately 16:00hrs by PWC staff on 20/12/2021 and the spill stopped by 16:20hrs 20/12/2021. <i>ii. How PWC were notified, or became aware of the discharge.</i> 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 16:00hrs (20/12/2021) and undertook action to resolve the situation and make it safe. <i>iii. The process by which the discharge occurred.</i> 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. 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. 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 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. <i>iv. The reason why the discharge occurred.</i> 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.
(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	<i>i. Confirmation signage and fencing has been erected, as appropriate.</i> No fencing or signage was erected in this instance, as the scene was disinfected and cleaned thoroughly; and the residents who know about the spill are the only ones able to access the spill area. <i>ii. Decontamination of the site as appropriate.</i> Clean up consistent with 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 and the surrounding surface was cleaned and disinfected.
(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 – Photograph of the spill site, showing just how diluted the spill actually was.

