

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

Date and Time of Notification:	Friday 5 th March 2021, approx. 16:45pm
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network (manhole)

(a) the incident causing or threatening to cause pollution

i. Description of the waste that was discharged.

Raw sewage (no gross pollutants).

ii. Indicative wastewater quality for the discharge.

Indicative wastewater quality for this overflow can be found in Table 1. Rainfall leading up to the overflow was 9.6mm for the previous 7 days, (Darwin Airport Weather Station – 014015), therefore raw sewage is believed to have overflowed from the ORG – this is reflected as Average Dry Weather Flows (ADWF) in Table 1 below.

Table 1: Inflows to Ludmilla WWTP

	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	

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.

iii. Volume of the waste that was discharged.

The volume of waste discharged is unknown. No telemetric monitoring occurs at manholes.

The overflow was notified to PWC by a local resident. PWC responded to the call and noticed the reticulation main was full due to a blockage of the line, resulting in an overflow from the manhole. The start time of the overflow is unknown and there is no metered data available for manhole's to determine an exact volume of the overflow.

The overflow was resolved shortly after attendance to the site by PWC officers.

	Discharge of raw sewage to land directly beside the manhole was associated with a fat build-up, blocking the sewer line, resulting in the overflow from the nearby manhole. Fat and other substances have been incorrectly disposed into the sewer network by customers resulting in a blockage.
(b) the place where the incident occurred	67 Wellington Parade, Alawa – Manhole <i>i. Description of the PWC asset from which the discharge occurred.</i> Manhole located at 67 Wellington Parade, Alawa – as per map below. <i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.</i> Discharge Point: 130.8735665, -12.3770594 Final Discharge Point: 130.8735665, -12.3770594 <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> Public access is generally available to the overflow site, however upon clean-up of the area fencing and signage has been installed to prevent access. The land was checked for gross pollutants of which none were visible, due to the manhole lid trapping them within the sewer system. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction.
(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. The overflow was observed at approximately 1:00pm on 5/03/21 and was stopped at approximately 1:20pm (5/03/21). <i>ii. How PWC were notified, or became aware of the discharge.</i> PWC call centre were notified by the local residents of a sewer overflow, this was then reported to the on call PWC staff. PWC staff attended the area at approx. 1:00pm (5/03/21). From this PWC resolved the overflow and cleaned the area. <i>iii. The process by which the discharge occurred.</i> Fat and other substances have been incorrectly disposed of into the sewer network by customers, resulting in the blockage and the overflow. The fats, oils, meat juices, other substances that are put down the sink or toilet have collected and built up, blocking the sewer line. When fats, oils and meat juices are put 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. <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.
(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	The fat build up was cleared and the overflow was stopped. Clean up undertaken as per Sewage Spills/Overflow Response Work Instruction. <i>i. Confirmation signage and fencing has been erected, as appropriate.</i> Upon arrival to site by PWC officer and completion of clean-up of the area, fencing and signage has been installed to prevent access by the public. <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. Vacuum truck was used to remove the wastewater from the manhole and surrounds, followed by cleaning of the surrounding surface. Area was observed for gross pollutants of which none were detected. The manhole lid appeared to have trapped these only allowing liquid to overflow. The area was then limed and fencing and warning signage installed. Public education about what can be disposed in sewer/is flushable: https://www.powerwater.com.au/_data/assets/pdf_file/0003/91578/Think_before_you_put_it_down_the_sink.pdf In the aim of prevention this material is available on the PWC website and is used as an educational tool for customers.
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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Overflow Location Map



Photo 1 – Prior to Clean-up



Photo 2 – Post Clean-up

