

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

Date and Time of Notification:	Tuesday 10 th November, 2020, 10.00am
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.

ii. Indicative wastewater quality for the discharge.

The day of the overflow, inflow data to Ludmilla WWTP was 12.01ML/day, and rainfall leading up to the overflow was 5.6mm for the previous 7 days, (Darwin Airport Weather Station – 014015), therefore raw sewage is believed to have overflowed from the Manhole – this is reflected as Average Dry Weather Flows (ADWF) in Table 1 below.

Indicative wastewater quality for this overflow can be found in Table 1.

Table 1: Inflow to Ludmilla Wastewater Treatment Plant

Inflow volume	median inflow kL	median E coli	90th percentile inflow kL	90th percentile E coli
below ADWF	11,040	11,199,000	12,925	15,531,000
>ADWF (approx. 14.5 L/day)	15,274	9,804,000	22,206	17,148,300
>2xADWF (approx. 29 ML/day)	31,673	4,884,000	37,166	14,385,600
>3xADWF approx. 43.5 L/day)	43,629	4,611,000	50,506	12,843,600
>5xADWF (approx. 72.5 L/day)	71,558	5,002,000	78,578	5,905,200

(ADWF= Average Dry Weather Flow)
90th percentile inflow: Protection of aquatic food for human consumption

Although reported as raw sewage, visual observations from the site indicate the wastewater was consistent with diluted wastewater i.e. graywater from household use e.g. wash water.

iii. Volume of the waste that was discharged.

The volume of waste discharged was estimated by PWC staff as approx. 80 litres. An exact volume cannot be provided as no telemetric monitoring occurs at manholes.

The residents of 28 Alawa Cres, Alawa notified PWC of the overflow, via the Power and Water call centre. PWC responded to the call and noticed an overflow from the manhole. The start time of the overflow was 14:30pm (09/11/2020). no metered data is available for manholes

	to determine an exact volume of the overflow. However, the estimated vol. is approx. 80 litres. The overflow was observed at approximately 16:30pm (09/11/2020) by PWC staff and resolved shortly after at approx. 17:00pm (09/11/2020). The cause of the blockage is unknown, however, as the manhole was being harbened/cleared, grease was observed indicating the blockage may have been due to a fat build-up.
(b) the place where the incident occurred	28 Alawa Cres, Alawa - Manhole located at the back of the residence <i>i. Description of the PWC asset from which the discharge occurred.</i> Manhole located at the back of 28 Alawa Cres, 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> Manhole Discharge Point: 130.87330022, -12.3808874 Final Discharge Point: 130.87330022, -12.3808874 The overflow originated from the manhole and overflowed onto the surrounding land, wastewater did not leave the site. <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> There is no public access to the site. The site is only accessible to the residents. Upon resolution of the blockage the area was cleaned comprehensively to ensure the area was safe. Occupants of 28 Alawa Cres were advised to avoid the area, until Power and Water contractors attended the site on Tuesday 10th Nov 2020 to removed contaminated soil (now complete). Due to the location temporary fencing was not appropriate. The area was checked for gross pollutants during the clean-up process. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction. Contaminated soil was removed the following day (Tuesday 10th Nov, 2020).
(c) the date and time of the incident	<i>i. The time and date of commencement and cessation of the discharge.</i> PWC were notified via the call centre at 14:30pm (09/11/2020). The overflow was observed by PWC staff at approximately 16:30pm (09/11/2020) and was stopped at approximately 17:00pm (09/11/2020). <i>ii. How PWC were notified, or became aware of the discharge.</i> PWC call centre were notified by the residents of 28 Alawa Cres, Alawa, of an overflow from the manhole, this was then reported to the on call

	PWC staff. PWC staff attended the area at approx. 16:30pm (09/11/20). From this PWC resolved the overflow and cleaned the area. <i>iii. The process by which the discharge occurred.</i> The overflow was the result of a blockage within the sewer main. The cause of the blockage is unknown, however, grease was observed during the harben process, indicating the blockage may have been due to a fat build-up. <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	The blockage 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 resolution of the blockage the area was cleaned comprehensively to ensure the area was safe. Due to the location temporary fencing was not appropriate. Therefore cleaning undertaken was performed to ensure access. PWC contractors attended the site on 10th Nov, 2020 and removed contaminated soil. <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. 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 PWC contractors attended the site on 10th Nov, 2020 and removed contaminated soil, replacing it with imported top soil. In the aim of preventing blockages, public education about what can be disposed in sewer/is flushable is accessible online: 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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Figure 1 – Location map



Photo 1 – Manhole (post cleanup)

